

Apple2000

THE NATIONAL APPLE USERS GROUP



JANUARY 1990



VOLUME 5(1)



APPLE 2000
RECOMMEND
SONY
DISKETTES

Bidmuthin Technologies Ltd.

Best for Apple II

The official UK agent for Applied Engineering



- to expand AppleWorks
- with AppleWorks Desk Accessories



- with MS-Dos on the Apple II
- with SCSI drives for the Apple II



- to expand the //e
- with AppleWorks GS



- with IIGS Accelerator
- with IIGS Networking



B

- Best for Hardware =



I

- Best for Software =



D

- Best for Advice =



M

U

- Best for Support =



T

- Best for Service =



H

I

- Sometimes, even the best prices =



N

*** Now, another first and best ***

Vulcan internal hard drive for IIGS (&//e) in stock... 40Mb - £595 + VAT
Pre-configured with GS/OS

Super partitioning software - can boot into any operating system
GS/OS, ProDos, MS-Dos, Pascal, CP/M, Dos 3.3. - Sensational Value!

STILL AVAILABLE

A wide range of products for //e,
GS & II+, including: TransWarp
GS - more than doubles the speed
of the IIGS

TransWarp - The RELIABLE
accelerator for the //e & II+

BT

Brent House, 214 Kenton Road,
Harrow, Middlesex HA3 8BT
Tel. (01) 907 8516 Fax. (01) 907 4398

CONTENTS

Chairman's Corner	
Letter Box	
Hardcore Pips	
AppleExtras — for the Apple II	
Library Update — for the Apple II	
Corruption — a review	
Sub Battle — a review	
Apple /// — how to install drivers	
AppleWorks 3.0 — Q&A's	
Typing Tutor IV — a review	
Iigs to SCART — connection details	
A cheap(ish) LaserWriter	
Using the Finder as a Launcher	
Icon Tips	
Some thoughts	
The Applied Ingenuity Drive — a review	
Hot Topics from Compuserve	
Apple Finder — useful information	
Hotline News	
Applefest — a reprise	
The Nibbler	
MacChat	
Publish It!	
Z88-to-Mac — a review	
BETT Show	
Being "Multifinder Aware"	
Division by Zero	
Flying in PageMaker — a review	
Network News	
T N # 245 Font Family Numbers	
Apple2000 Index	
Members' Small Ads.	
Apple2000 Workshop	
HyperCard Forum	
PostScript	
The WDEF Virus	
AppleExtras — Mac Library	
Local Groups	
Members' Small Ads.	
Advertisers' Index	

Ewen Wannop	2
John Sharp, Martin Rogers	3
	6
	10
	12
Keith Rookledge	13
Robert Hornby	13
Mike Kramer	14
William Marriott	17
Terry Morris	20
Jihad Jaafar	21
Jeremy Quinn	22
Gary R Utter	23
Rob Moore & Jim Merritt	25
Anon	26
Jihad Jaafar	27
	28
Elizabeth Littlewood	30
Dave Ward	32
Joe Walters	33
	38
Norah Arnold	42
Ewen Wannop	45
Norah Arnold	50
E Wannop, D & I Flaxman	51
Rick Thomas	54
Blyth Software	57
Irene Flaxman	58
	60
	64
	66
	69
	70
	72
	74
John Norstad	75
	76
	78
	80
	80

Apple2000 supports users of all the Apple computers. The ITT 2020, I, II, II+, //e, //c, //c+, Iigs, Iigs+, ///, Lisa, XL, Mac 128, 512, MacPlus, SE, SE/30, Mac II, Iicx, Iicl, Iix and Mac Portable. Contributions and articles for the magazine are always welcome. We can handle any disk size or format. Please send to the PO Box, L21 8PY.

NOTE:

In general the front half of the magazine is for the Apple II, Apple Iigs and Apple ///. The back half for the Macintosh and Lisa. Look out for the descriptive page icons.

Key:

Apple II, //e and //c
Apple ///
Apple Iigs
Macintosh, Lisa
Macintosh II



Contact Points

The Force and Local Groups
John Lee

051 959 0307

Administration
Irene Flaxman

051 959 0307

051 959 0307

Adverts / Admin.
Alison Davies

051 959 0307

Apple II Hotline
Dave Ward

051 959 0307

Mon-Fri 1900-2100

Macintosh Hotline
Tony Dart

051 959 0307

Mon-Fri 1900-2100

TABBS

Ewen Wannop - SYSOP

051 959 0307

There are a number of ways to contact Apple2000.

Force users who have a query about the service can contact the administrator, John Lee, directly for help and advice. Call him on the number opposite or send a message to his box on the Force.

If you wish to order goods or services from Apple2000, call Irene on 051 959 0307 or (during office hours) call Alison on 051 959 0307. Both have Ansafones, in case they're not around. Alternatively you can Fax, to 051 959 0307, write to the PO Box or (if you use comms) you can leave orders on TABBS addressed to the SYSOP.

If you are experiencing problems with Apple hardware or software Dave Ward and Tony Dart run the Hotlines and will try and help you.

We are very interested in the activities of local user groups, and if you have any information which you would like publicised John Lee would like to hear from you.

We reserve the right to publish, without prejudice, any advice or comments given to members in the journals of Apple2000.

A little praise for a few of our authors wouldn't go amiss. Send all comments, and contributions, via the PO box, especially suggestions about what you would like to see in your magazine.

Chairman's Corner



1980-1990



may be, we always need your help. The committee members are perhaps the hardest worked, and they would love to be able to shed some of the load. Come along to the AGM and offer your services. Even if you do not have the time to be able to help directly, come along to the AGM and meet the committee and fellow members and enthusiasts. It is a great day out and a chance to air your problems, see new computers and programs, or just jaw with old friends.

1990 promises to be another year to remember for the Apple connoisseur. This time last year, the IIGS+, SE/30, IICl and the IICx had not yet been announced, and here we are expecting the IICx, a replacement for the SE and a budget colour Mac II. There are even strong rumours that the real enhanced IIGS may appear this year as well! System 7.0 is expected to be shipped in the summer, and when all the dust has died down, we should see the price of LaserWriters drop sharply, and the confusion of fonts increase! They tell us that we are not to worry, programs will be compatible with both systems for some time to come. I hope they are right. I have had many frustrated hours harmonising existing screen fonts and getting them to show correctly, and that is with the existing operating system!

Do not forget to check both halves of the magazine, there are always articles of interest in both sections!

Ewen Wannop

By the time you read this editorial, Alison Davies our administrator, will be scanning Gloucestershire for a new home. The move was sprung on Alison's husband Mike at very short notice. Until they have found themselves a new house, phone calls to the old number in Sevenoaks are being re-directed to Liverpool. We apologise for this hiccup, especially if you were greeted by the Answerphone, and hope to give you Alison's new phone number as soon as possible.

Mike Davies is also our workshop co-ordinator, and he has fixed up an event at Bidmuthin Technologies in Harrow. This event will cover both Apple II and Macintosh computers. These events are well attended and very popular. Steve Morrisby usually manages to put on some special offers on the day, but even without these, it gives us a chance to see the latest software and hardware, or even just to put a face to

a name! Check the details in the Macintosh section of this issue.

We launch AppleXtras with this issue, and many of you will be receiving your first disks. It is still not too late to subscribe to the scheme, or to increase your disks from one to two. If you own both a Macintosh and a IIGS you could even get the whole three! Let us know what you think of the whole idea. We think it is an excellent way to keep you all up to date with the latest Public Domain and Shareware software.

In the March issue of Apple Slices, you find full details of the Annual General Meeting of Apple2000. The date is not quite finalised at the moment, but we expect it sometime in the weeks after Easter. This is now the time for you to decide how you can help Apple2000. We are a partnership of members who help each other through our expertise and knowledge. We are all volunteers, and however little your contribution

The Editorial team is:

Apple II
Ewen Wannop

Macintosh
Norah Arnold
Irene Flaxman

Many thanks to all those who work behind the scenes and who receive no personal credit. These people are the stalwarts of Apple2000.

Additional thanks to Walter Lewis of Old Roan Press (051-227-4818) for our printing service, and to Ian Sharp of Sharp Studios (051-227-2788) for our cover design. (Graphics for the cover design supplied by Apple Computer UK Ltd, Adobe Systems Inc., Cricket Software.)

Apple2000 are Founder Members and
Wholehearted Supporters of the
Apple User Group Council

Annual subscription rates are £25.00 for UK residents, £30.00 for E.E.C. residents and £35.00 for other overseas members.

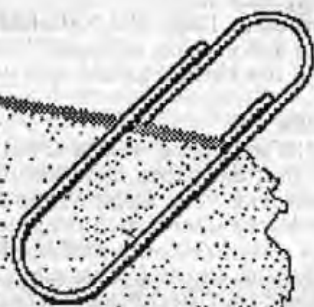
Apple2000™ is a trading name of BASUG Ltd, a non-profit making independent company limited by guarantee.

The contents of this journal are copyright of BASUG Ltd and/or the respective authors. Permission is granted for non-commercial reproduction providing the author and source are properly credited and a copy of the relevant journal is sent. The opinions and views expressed are those of the various contributors, and are not necessarily supported by BASUG Ltd.

This journal is published bi-monthly by BASUG Ltd as a benefit of membership in February, April, June, August, October and December. The copy date is the 1st day of the month preceding publication. Advertising rates are available on request.

Apple™ and the Apple logo are trademarks of Apple Computer Inc. Macintosh™ is a trademark of Macintosh Laboratory Inc and used with the express permission of the owner. Telecom Gold™ is a trademark of British Telecom plc. The FORCE™ and Apple2000™ are trademarks of BASUG Ltd.

Letter Box



IIGS Mailbox

Toledo
OHIO 44110-1234
USA

Dear Mr. Wannop.

A 'flyer' offered from MGA MicroSystems in Kent introduced Apple2000 to me and I found my first copy of Apple2000 (Aug '89, Vol 4(4)) very interesting and enjoyable. I liked Network News and the MicroMate column, especially the article regarding the Apple IIGS battery.

Enclosed is information which provides another alternative for Apple IIGS owners, one which does not require special skills, challenges, tools, or techniques. Simply cut-snip the old battery leaving exposed as much as possible the battery's leads and then, 'slide' this new battery onto those leads (correct polarity observed). A simple task, an easy procedure taking one moment to understand what is to be done and less to do it.

TABBS and The Force/Telecom Gold' BBS and databases are attractive and I would like to explore further these systems. The task is how to access and to logon.

The French MINTEL has come to the US. Though their 'free' Minitel Terminal Emulation (MINTEL/II) videotex program on the Apple II+ and the Apple IIc in monochrome does allow access to many thousand services through a local node on the INFONET network, it is this program on the IIGS and color that will keep one online. The INFONET phone directory does include access nodes in Australia, Belgium, Canada, Denmark, Finland, Germany, Italy, Japan, Mexico, Netherlands, Norway, Puerto Rico, South Africa, Spain, Sweden, Switzerland, and of course the United Kingdom as well as Omaha, Nebraska.

Do many of Apple2000 members use this service. I would especially be interested in any special interest groups (SIG's) among members whose interests are with the environment and in tapping the powers of their Apple's supporting their financial goals and investment objectives.

These two subjects could offer a interesting series of articles. How members are using their computers, what programs are used, liked or disliked. Looking forward to my next issue.

Robert Benson

□ Thank you for your letter and the enclosed information on the Slide-On battery. The dead battery problem with the IIGS (and the Macintosh) has been solved in many ways. New Macintoshes now have a battery holder, and I understand the new IIGS Motherboard also has one, but for the rest of us, this is the simplest solution. I see that it was the 'Editor's choice' in InCider August 89, and that the world record for changing a battery is 1 minute 22 seconds!

For those in need, the battery is priced at \$9.95 + \$3.00 shipping, from:

Nite Owl Productions
Slide-On Batteries
5734 Lamar Avenue
Mission
KS 66202
USA

To access Telecom Gold/The Force from the USA, you will have to connect through one of the IPSS services that has links into the Dialcom network. It is not a patch on Compuserve or GENie. If you get clean inter-continental lines, you can always give TABBS a ring. We would love to see you there!

Ewen Wannop

AppleWorks Mailbox

RECEIVED
COMMUNICATIONS
UNIT - BANGOR

Dear Apple2000,

I am trying to find out everything necessary to know about the Hewlett-Packard jet printers, and their behaviour etc. etc. with AppleWorks on a

IIGS. I have approached all the suppliers, and all tell me something different, as does everyone else. I have asked Dave Ward, and I don't blame him for being befuddled!

Do you know anyone around here - Gloucestershire, Oxford, Wilts - who actually has one and can give me the genuine "own stick fingers hands on" low down?

John Howard

□ I do not know of anyone other than Keith Rookledge who has one of these printers, though you can usually see one in action at Bidmuthin Technologies.

I have taken the liberty of printing your phone number, if anyone can help please give John a ring. Ed. 🍏

Broadstone
Dorset

Dear Sir,

I read Peter Davis' article on AppleWorks 3 in the December edition with great interest. On page 36 he states "I have to say this is an aspect that I have not fully explored but the use of AppleWorks with the Laser printer seems now fully supported". I have been an AppleWorks user for the last 6 years and received my upgrade in October from Holdens. I tried to use AppleWorks version 2 with the Laser printer 2 years ago but was forced to give up because of the problems with the £ sign, underlining and bold face.

I would be very interested to hear from a reader who has successfully hooked up an Apple //e to either an Apple (or other) laser printer.

Stuart I Magnus

□ I could not resist the challenge... as I had not actually tried the LaserWriter from AppleWorks before. I can report that it all works fine.

The LaserWriter needs to have an ImageWriter emulator downloaded so it will interpret the print commands correctly. Using the IIGS it is very easy to download the ImageWriter emulator when you select the LaserWriter from the Control Panel NDA in System 5.0 or above.

These are the steps that I took to make it all work:

I first set the slots to show Slot 7 as AppleTalk and Slot 1 as 'Your Card'. Then I rebooted to the Finder, and selected 'LaserWriter' from the Control Panel NDA.

When the LaserWriter name appeared, I selected 'ImageWriter Emulation'.

Next I ran AppleWorks and installed an ImageWriter printer in Slot 7.

Please submit all letters and articles to the magazine on disk wherever possible. The disks will be returned to you when the magazine is published. If you have a modem, send us letters, articles and Public Domain programs either to BSG005 or to TABBS ((011) 011 011 011).

Printing is then sent normally to this printer, the text output is in Courier and supports Bold and Underline

I have posted details of NAUG (National AppleWorks User Group) opposite. It is a source of all things related to AppleWorks and well worth joining.

I gather they recently published some articles on connecting a LaserWriter to AppleWorks in their magazine.

Ewen Wannop

Eccles
Lancashire
Dear Sir,

I enjoyed the article by Peter Davis on AppleWorks 3.0. It was very timely as I just started to use it with my Apple IIs and ImageWriter II. Can you help with three problems?

First can you explain in simple terms how I can set it up to always print half-size superscripts for reference numbers?

Second, as Peter Davis mentions, is there any up-date or other way that AppleWorks 3 can do automatic footnote renumbering, (both in the script and in the footnotes). For those of us that have to write long articles with references, this would be a major advance; renumbering a hundred or so footnotes can take a long time. I believe there is some software (not for Apple) called "nota bene" which can do this.

Finally can you tell me how I could set up the printer to do italics, and switch from normal text to italics as an alternative to underlining?

Thank you for your help.

Peter D Mohr

☐ Superscripts, italics and other non-standard characters are not

The National AppleWorks Users Group

The National AppleWorks Users Group (NAUG) has one mission — to help AppleWorks users.

Formed in 1986, the National AppleWorks Users Group is the world's largest association of Apple II users. NAUG has more than 14,000 members in the United States and 38 other countries.

Benefits:

NAUG members receive the AppleWorks Forum, a 36-page monthly newsletter that describes tips, techniques, and hints to help users get more from AppleWorks. The AppleWorks Forum includes other articles of interest to AppleWorks users, including news of product releases and reviews of AppleWorks enhancements and AppleWorks-compatible software. NAUG works closely with Claris Corporation, Apple Computer, Applied Engineering, Beagle Bros, Checkmate Technology, JEM Software, and other AppleWorks developers to insure our members get the latest information about AppleWorks and answers to their AppleWorks questions.

NAUG members have access to more than 150 volunteer-consultants who provide free telephone support for their fellow NAUG members. A list of consultants and their areas of expertise appears in each issue of the AppleWorks Forum.

Members get unlimited access to NAUG's AppleWorks electronic bulletin board, the Electronic Forum. The Electronic Forum lets you get answers to questions and download AppleWorks templates and programs 24-hours a day. As of this date, the Electronic Forum has handled more than 28,000 calls from NAUG members seeking help or sharing information with their NAUG colleagues.

Members have access to NAUG's Public Domain Library that contains dozens of disks and more than 700 AppleWorks templates and files. The library also contains AppleWorks enhancement programs submitted by members and demonstration versions of AppleWorks enhancement programs from commercial vendors.

NAUG members have access to the group's Disk Rescuers Program; professionals who can recover damaged AppleWorks data disks. You will appreciate this program if you ever forget to back up an important file and get the dreaded "Unable to read disk in Drive 2" message.

Finally, NAUG members receive significant discounts on AppleWorks products. For example, NAUG members may purchase TimeOut products, RepairWorks, and SuperPatch at 40% off the suggested retail price. Members also get discounts for NAUG's AppleWorks seminars.

NAUG membership costs \$27 per year and includes 12 issues of the AppleWorks Forum. Send a check or your Visa/MasterCard number and expiration date to:

National AppleWorks Users Group
Box 87453, Canton, Michigan 48187. (313) 454-1115

TABBS

The Apple2000 Bulletin Board System

The TABBS message system is more than just a Bulletin Board. With a shopping mall where you can browse the Apple2000 catalogues and order the goods you require; a library containing over 1500 files for the Apple II, IIs and Macintosh; news files update twice weekly bringing you the latest in world computer news and of course NewsBytes™; a private and public E-mail service; file transfers that can be enclosed in private or public mail; message areas covering many topics including the Apple II, the IIs and Macintosh; Xmodem, 1k Xmodem and Ymodem file transfers; multi-speed access at all common speeds; 24 hour operation; and much, much more make TABBS the premier Apple Bulletin Board serving Europe. Give TABBS a call today.

Ring TABBS on (0225) 743797 at any speed through V21, V22, V23 to V22bis 8N1
TABBS is available 24 hours a day

```
TTTT  A  BBBB BBBB SSSS
T  A A B B B S
T  A  A BBBB BBBB SSSS
T  AAAAA B B B S
T  A  A BBBB BBBB SSSS
```

THE APPLE 2000 USER GROUP
BULLETIN BOARD SYSTEM
V21, V22, V22BIS, V23
24 HOURS 8-N-1

```
<1> Apple II folder
<2> Apple IIs folder
<3> Macintosh folder
<4> Apple2000 folder
<5> Developers folder
<6> Public areas
```

```
<D>ownload Libraries
<M>ailbox
<N>ews Columns
<S>hopping Mall
<W>eekly Update
<H>elp files for TABBS
```


Letters Continued

supported directly by the ImageWriter. The only way to print characters like these is by using custom fonts either downloaded to the ImageWriter or printed by means of graphic dumps in the way SuperFonts or FontTrix works. As to footnotes, this would need something like the TimeOut program macros. You will need to contact Ken Dawson, our Beagle Buddy, for an update if you have original TimeOut products.

Perhaps someone can help Peter further with this one? Ed.

Hard Drive Mailbox

Cheltenham
Gloucestershire

Dear Ewen,

Like Bill Mealey, after reading your two features on hard disks I was inspired to think about assembling one for my //e. Eventually I did get hold of a hard disk but I did not have to assemble it myself. Perhaps it would be of interest to others to know there is a low budget alternative to the DIY route to a SCSI hard disk.

In the course of shopping around for a SCSI subassembly a dealer offered me a used Rodime 20 Plus drive complete with cables for about the cost of a bare Seagate ST 225N. Remembering your comment that "you can use any SCSI drive you can get your hands on", I bought the Rodime, got a Cirtech SCSI interface (from an Apple2000 advertiser) and a copy of ProSel, and have never looked back!

There were a few minor difficulties. I wanted the SCSI interface in slot 7, as recommended by Dave Ward in his review, but on my //e from slot 7 the cable is too short to reach a panel opening large enough for the connector. Although the User's Manual says that on a //e you must choose a slot such that the cable can be attached to one of the large back panel openings, I installed it in slot 7 anyway and made up a 3 inch extension cable, assuming the manual's advice was to cover users with long connecting cables.

The dealer said he had formatted the Rodime and installed some P.D. utilities. When I had connected everything up I decided to run the Test utility from the SCSI Support Disk to check for bad blocks. This worked and eventually it came up with a few, but well over 20mb worth of good ones. Then I tried to Catalog the hard disk but could only get I/O errors. Slight panic set in, then I remembered Dave Ward's review comment that a disk formatted using an Apple SCSI interface would not be recognised by a Cirtech SCSI interface. The dealer confirmed he had used an Apple interface and said he did not know of this. I then did a low-level format with the Cirtech utility, a regular format with CopyII+, installed ProSel, set up

small DOS 3.3 and CP/M partitions for my old programs and ever since I have wondered how I managed without it.

I have not seen any reference to other members trying a second user Mac SCSI drive with an Apple II. I am delighted with mine and can recommend this approach to anyone on a budget who can get a Mac castoff drive from a reliable source at a good price.

Peter B. Dyson

Dentists Mailbox

The Dentistry Partnership
605 Portland Building
Thames Valley
Reading
RG1 1AA
0703 242111

Dear Apple2000,

I have been a member of Apple2000 for several years. I have found it most useful and I enjoy reading the magazine immensely.

I notice that you have various specialist groups within the organisation and as a dentist I have noted that there is no dental group as such.

At the moment there does not seem a lot of activity in the dental field but I'm sure that the superiority of the Mac operating system will prevail amongst those who are looking for quality. I have a good friend who is also a member, Mr John McCormack, 40 Harley Street and is also an enthusiast. We feel that we should make efforts to see if there are others of a like persuasion and start a specialist user group. I would be happy to act as convener.

I would be grateful if you could let me know if it is in order to set up a group in this way. If it is in order would you be able to publicise it in the Journal?

Jim Page

As you know, Apple2000 is run by volunteers. The editors of the magazine, and the committee members, are just ordinary members giving their time to the benefit of all the members of the group. It has not always been possible to do all of the things that we would like through lack of time and help, and we have had to rely on the additional help of other members to do many of the day-to-day tasks.

Until now, we have not been able to organise SIG's on any other than an ad hoc basis, though what I have tried to do in the past is to collect together the names of all those who are willing to help in some way.

Bearing all this in mind, I have published your address in full, and thank you for the offer to convene those who may be interested in dentistry combined with Apple computers.

Please get in touch with Jim if you

have similar interests, and if any of you would like to convene other subject area, please let us know!

Ewen Wannop

ProDOS Mailbox

Edinburgh
Scotland

Dear Ewen,

How often have you heard the phrase 'I only have a DOS 3.3 computer and so can't run ProDOS'? Can we finally nail this spectre down by explaining the differences between the different disk operating systems extant on the Apple II series?

In the beginning there was Steve Wozniak, and it was he who decided that he was not going to pay the excessive prices asked for disk drives, and that he could emulate in software all the control circuits of the floppy drive back in those ancient days. Thus in only a few days was born DOS, and with a few changes grew into DOS 3.2. This was a complete disk operating system based on a 13 sector 35 track 5.25 single sided disk.

After a couple of years, more space was found by extending to 16 sectors and the ubiquitous DOS 3.3 140k disk was born. The original DOS 3.3 operating system was designed to run in only 48k but DOS Movers rapidly appeared to put the DOS into the 16k space that otherwise was doing nothing on the Ram Card in Slot 0. Those that without a Ram Card, could still of course use DOS with the normal 48k.

The Apple // next appeared on the scene, and with it a brand new hierarchical operating system called SOS (Sophisticated Operating System). Then came the Apple //e. This was fitted with a built in 16k RamCard and so could always allow the DOS operating system to be moved up into extra Ram space.

Things started to warm up now, and those clever chaps at Apple honed and refined SOS into ProDOS. ProDOS had lots of advantages, though at first many also saw disadvantages, and was firmly directed at the Apple II market. Without it, we would not have 16mb memory cards, sub-directories, AppleWorks or even hard disks! However, back to the story...

ProDOS up to Version 1.0.1 (the version on our introductory disk), would work in either 48k or the full 64k memory available with a RamCard in Slot 0, and of course the //e and //c. Memory was getting cheaper, and most people by now had a RamCard in Slot 0 of their II+ computers, so Apple decided to drop the 48k version and only issue 64k versions of ProDOS. This is the state of play now though ProDOS is now known under the name of P8 so we do not get confused with P16, and it will run on any flavour of Apple II, as long as it has 64k of memory!

Scott Freeman

Hardcore Pips

The BASUG archive concludes this month the Debugging Tips from April 1983 and becomes an Apple Executive

Conclusion

This follows on from previous articles and is a conclusion to the set, but not an end. Everyone has their own private tricks. I no longer make all the mistakes I did, so some vital problems may be missing.

Try the following program:-

```
70 FOR N = 1 TO 8
80 Q(N) = N
90 NEXT N
```

and RUN it.

Since there is nothing output to the screen then there is no visible evidence that the program has done anything. The array Q() has however been filled. This happens even when other parts of the program are writing to the screen. It is possible to find out if variables are what you think they are by inspecting them in immediate mode just by typing in from the keyboard, so that for example if you type:-

```
PRINT Q(3) <RETURN>
```

3 is the result.

We can also use variables so

```
PRINT Q(N)
```

is just as valid. Try it and see that the following is the result

```
PRINT Q(N)
0
```

So what is this? Surely since the loop has gone around from 1 to 8, N has become 8 why do we not get the value 8?

```
PRINT Q(8)
8
```

is OK. So try

```
PRINT N
9
```

NOTE !!! When you come out of a loop the value of the variable you are changing has always gone one more step than you specified. When the

program reaches the NEXT in line 750 the value of N is increased and then it goes back to the beginning of the loop at line 700 and tests if the value of N is greater than 8. Only if it is not will it go through the loop again, otherwise it will try to find the line following the NEXT statement, i.e. a line numbered greater than 750.

It is sometimes the case that when running a program, you realise it is not going the way you thought. In this case you can break the program by pressing <CTRL-C> and try to sort it out from there.

Add line 75 as follows:-

```
75 FOR DLY = 1 TO 500: NEXT
```

This is a very useful general line. It is a time wasting statement, simply sending the program round and round 500 times so that time is used up. In this case it is there to make the program go slower so that we can break the program before it has finished. You can see the delay as follows :-

```
TRACE
RUN
```

Lots of #75s are generated.

Having switched off the trace function with NOTRACE, RUN the program again and when it has gone a few rounds of the outer loop, but before it has finished (you will have to guess the timing) press <CTRL-c> The message:-

```
BREAK IN 75
```

comes up.

This is a very important aspect of debugging. A program may appear to have gone away - technically known as 'hanging'. If you press <CTRL-C> then it will tell you that you have stopped at a particular line. If you now type

```
CONT
```

it will CONTINUE where it left off, without destroying the value of any variables as RUN would.

In practice you would probably print out some of the variables in immediate mode in the meantime. This would in this case for example yield the following information:-

```
RUN
BREAK IN 75
?N
3
CONT
```

and you know you have broken into the program when the outer loop had a value of N=3. The value of N was preserved and it was able to carry on even though you had printed the value of N. You can even alter the value of N and still allow it to continue.

```
RUN
BREAK IN 75
?N
3
N=6
CONT
```

This means that you would not have filled the array when N was equal to 4, 5 and 6. To show this type the following in immediate mode:-

```
FOR N = 1 TO 8: ? Q(N);:NEXT
1 2 3 0 0 0 7 8
```

The line containing the FOR ... NEXT loop should be on one line without pressing <RETURN> until the end of the line. Do not forget the ":" so that the values are printed in one line, or you will possibly scroll off the screen.

Now alter line 80 to

```
80 Q(N) = M
```

and add

```
60 M = 49
and run the program again, without breaking and repeat the last exercise :-
```

```
FOR N = 1 TO 8 : ? Q(N);:NEXT
49 49 49 49 49 49 49 49
```

This time since M is fixed by the previous line to 49, all the values of the array are the same.

If this was an error of typing, missing the N key and hitting the M instead, you would have a clue instantly especially if you then printed M and found it to match.

One other way to pick up this type of error, i.e. of getting all the values wrong without at first knowing why would be to go straight to the appropriate loop directly. This can be done in two ways:-

RUN 70 or GOTO 70

They are both valuable tools. Suppose we carry out the same exercise and print the value of the array variables as before, using RUN 70, the result would be as follows:-

RUN70

FOR N = 1 TO 8 : ? Q(N);:NEXT

0 0 0 0 0 0 0 0

The value of M has automatically been set to zero by the RUN command.

The command GOTO does not zero all variables. Try the following using <CTRL-C> key to halt the program after the value of M has been set, and see that the array variables are all set to 49 again

RUN
BREAK IN 75
GOTO 70

FOR N = 1 TO 8 : ? Q(N);:NEXT
49 49 49 49 49 49 49 49

In fact, just to prove the point, the alteration of the variable first could be done as follows:-

M = 99
RUN 70

FOR N = 1 TO 8 : ? Q(N);:NEXT
0 0 0 0 0 0 0 0

or as follows

M = 99
GOTO 70

FOR N = 1 TO 8 : ? Q(N);:NEXT
99 99 99 99 99 99 99 99

The same techniques can be used with strings. If the string variable has not been assigned, it will not of course print anything. So the following holds

? A\$: ? B\$

FRED

means that A\$ was empty (a blank line was printed) and B\$ had been set to FRED.

CONCLUSION:

This is not the final word in debugging, but a summary of some of the "tricks of the trade". Most you learn yourself, the hard way. Any more ideas would be welcome, even by some of the older hands, especially since, as I said at the beginning, I have forgotten some mistakes I used to make.

John Sharp - April 1983

Be an Apple Executive

So you want to be an Executive! An Executive is one who gives orders to his minions and then sits back and observes the action. Apple gave us all the tools to become an executive when we bought our Disk II's, and we booted up our first disk. One of DOS's least exploited commands is the EXEC command. Most users read about it in the DOS manual and try out the sample program on the System Master, but then pass on in bewilderment, never to use EXEC again.

So What Does EXEC Do?

When you turn on an exec file with the EXEC command, DOS intercepts all input requests, and supplies the input from the text file being EXEC'ed. The commands and responses can be Immediate commands, Program lines or DOS commands. If a program is run, the EXEC file will wait patiently until the program ends before issuing its next command.

How do I set up an EXEC file?

A text file containing commands to be EXEC'ed is no different to a normal text file. The file can be set up using a text editor such as the editor on the DOS Toolkit or using a word processor such as Apple Writer II. If you do not possess a suitable package, a simple program such as MAKE TEXT on your System master can be used to enter the text but does not have the advantages of editing nor does it allow commas or colons, but is otherwise quite adequate for the task.

How many EXEC files can be open at once?

There can only be one EXEC file open at any one time. If the text file being EXEC'ed contains an EXEC command, the current EXEC file is closed and control is handed over to the new EXEC file. The DOS command CLOSE will not close an EXEC file.

So what can I do with an EXEC file?

The list of applications for EXEC'ed commands is only limited by your imagination and inventive capacity.

The purpose of this article is to whet your appetite by telling you about some of the applications that I have found.

— Program Modification

For those of us not fortunate enough to own PLE or GPLE, modifying programs can be a bit of a chore. To make life a little easier, you can save your program as a text file and then use a word processor to edit the program lines. The modified program can then be EXEC'ed back into memory. To save the program as a text file, just add this line to the program -

```
60000 INPUT "YOUR PROGRAM NAME-";ZZ$;D$ = CHR$(13) + CHR$(4);ZZ$ = ZZ$ + ".TEXT": POKE 33,30: ? D$;"OPEN";ZZ$: ? D$;"WRITE";ZZ$: LIST 0,59999: ? D$;"CLOSE": POKE 33,40: DEL 60000,60000
```

and then in Immediate mode type

RUN 60000

and your program will be saved as a text file. Why not set up an EXEC file to do it for you!!!

This technique can be used if you want to append two programs together or to insert those favourite subroutines into the program you are working on.

— Entering Command Strings

When you find that you are typing in the same old commands to perform a routine task - that is the time to set up an EXEC file of those commands and let DOS perform the chore for you.

e.g. Altering the screen width to let you fast type over text in print statements can be effected by a text file containing

TEXT:HOME:POKE33,30

which you EXEC when required. (Type TEXT when you have finished to get back to normal screen width!)

— To enter Machine Code routines

When entering machine code routines from Magazine articles I always enter them into a text file in the following format using a word processor. The main advantage is that I can easily edit and correct any typing errors if the routine does not work.

CALL-151

```
302:A0 00 A5 69 00 03 A5 6A 8D  
01 03 B1 69 C9 02 D0 04 A9 08  
91 69 A6 69 CA 86 6A  
324:A9 08 C5 6A D0 E4 A9 01 C5  
69 D0 DE AD 00 30 85 69 AD 01  
03 85 6A
```

etc.

etc.

3D0G

You can also enter machine code routines into several different memory locations in one step by entering the different start locations at the start of the file line.

(Warning - Do not enter more than 254 characters before pressing return as you will lose the excess characters. This restraint also applies when entering directly through the keyboard, but your word processor may not warn you!)

— Modifications to DOS

There have been many desirable modifications to DOS published in

the various publications available, not least Hardcore. Most advise that the modifications be entered, then a new diskette be initialised, which will bear the modified image of DOS. This is OK until you find another desirable modification which when keyed in clashes with the memory utilisation of the original patch. The result can be unexpected and possibly downright disastrous.

Another approach is to have a HELLO program on the diskette which POKEs in the patch when the disk is booted. The problem with this is that you have to remember to boot that disk or run the HELLO program which will destroy any program in memory and the values of any variables which you may wish to preserve.

The solution is to hold the coding of the patch in a text file as described above. Then when you want to install the patch, just EXEC it in. EXEC does not affect the program in memory or its variables. (So long as you don't interfere with zero page or program/variable space.)

If you want to get rid of the patch, just boot up to regain standard DOS.

Here is one for you to try. It replaces the MAXFILES command in DOS with a new command FILEDUMP. (Very useful for examining the contents of EXEC files!)

```
CALL-151
BCDF:20 8E FD 20 A3 A2 20 8C A6
  F0 05 20 ED FD D0 F6 20 FC A2
  60
A8E7:46 49 4C 45 44 55 4D D0
9D48:DE BC
A933:20 30
3D0G
HOME:VTAB10:HTAB11:"FILEDUMP
INSTALLED":VTAB15:HTAB6:"FILEDUMP
<FILENAME>, (S6,D1)":VTAB23:
HTAB11:"AN M.C.R. UTILITY."
```

Type it in and save in a text file called FILEDUMP LOADER. Just enter EXEC FILEDUMP LOADER to install the routine. If you want to print the file contents, enter PR#1 to initialise the printer and then FILEDUMP <your file name>,Sn,Dn. (The last two are optional). You will then receive a print of each field on the file.

— To control the running of a series of programs

This is just the job for those boring maintenance runs where the APPLE is doing all the work and you only run the programs and make routine responses.

Next time you go through the procedure, make a careful note of the responses you make. Then enter them into a text file and you can then EXEC the file and the APPLE will run itself while you make the coffee.

— Entering the data from one program into an existing program

Have you ever wished that you could enter, say, Invoice details from your Invoicing program into your Sales Ledger package, but hesitate to modify the package because of maintenance/copyright/complexity restraints?

Now you can!

This is just an extension of the preceding application. Make a careful note of all the responses that you make via the keyboard when manually entering the data. Then make the program supplying the data write a text file of these responses. The file will typically contain three sections.

1. Header information concerned with getting the 'package' program up and running.

```
RUN <package program
name>,<S6,D1>
2
4 (Menu responses
27.02.83 (Enter today's date
etc.
etc.
```

2. Many occurrences of actual data to be entered into the program, complete with any Y/N responses confirming correctness.

3. A trailer section which terminates the entry of data, and gets you back to the menu, possibly to run another option (such as an audit print), and finally to exit the package in an orderly fashion. This section would also contain the command to run the next program (possibly a MENU program.)

— Control of programs requiring non file input

The EXEC command will supply all input requests with records from the text file being EXECed. This is most inconvenient if you wish to make the occasional contribution to the action.

One way to overcome the problem is to arrange that the text file runs out of data just at the crucial moment, and then have the program EXEC a new file of data when you have had your say. Do not fall into the trap of having an EXEC command as the last entry on the old EXEC file, as the EXEC command will be read by the INPUT statement into your program and will not be 'seen' by DOS. Your program will probably object, and the command will not be executed.

A far better solution would be to turn the EXEC file on and off at suitable points in the program sequence. This is achieved by POKEing 0 or 1 into the EXEC file active flag at \$AAB3 in DOS.

This must be done from within the running program with a POKE 43699,0 or POKE 43699,1. It does not seem to work when done in immediate mode. The following simple EXEC file loads and runs a program that demonstrates the technique.

```
SPEED=150:NEW
HOME:VTAB12:HTAB13:"EXEC FILE
DEMO"
10
POKE43699,0:VTAB22:HTAB10:"<<ANY
KEY FOR
MORE>>";GETAS:POKE43699,1:HOME
RUN
?"NOW FOR A
GAME":?"FORI=1TO40:"="":NEXTI:
POKE34,5
10 FOR I=1 TO 6
20 AS="YOUR GO":IF
PEEK(43699)THENAS="MY GO"
30 VTAB6:CALL-958:?"CHR$(7):?"AS
40 VTAB12:"ENTER A NUMBER AND
I":?"WILL TELL YOU ITS
SQUARE...
":INPUT":A:VTAB13:HTAB30:
CALL-868:"A:A=INT(A):
B=INT(A^2):VTAB18:"A:" TO THE
POWER OF 2 IS ";B
50 X=PEEK(43699):POKE43699,NOTX
60 FOR J=1 TO 3000:NEXTJ:NEXTI
GOTO10
7
5
9
POKE34,0
HOME:"HERE IS THE PROGRAM - "
LIST
SPEED=255
?"SO WHERE DID THE INPUT COME
FROM?"
```

As you will see when you EXEC the file the program takes some input from the file and some from the keyboard.

There are many more areas of EXEC to be explored yet. In future articles more useful DOS patches will be shown and further techniques for using EXEC files in an EXECutive manner. Let us know what applications you find for the EXEC command.

Martin Rogers - April 1983

□ In 1983, ProDOS was not yet fully available. All the examples in these articles were written under DOS 3.3. Most of them will operate correctly under ProDOS, but some may not work. If you have a problem, try under DOS 3.3 before you give up! Ed



Apple2000 is a partnership of enthusiastic members working together for the promotion of all things common to Apple.

COLOUR PAPER

11x9.5" microperf 100g (prices include VAT)

ELECTRIC BLUE / KELLY GREEN / BRILLIANT YELLOW /
WILD PINK / CHERRY RED

CENTURY PAK 100	BRITE	£7.95
VALUE PAK (250)		£14.95
COLORBURST (125 ASSORTMENT)		£9.95
RAINBOW (250 ASSORTMENT)		£16.95
SAMPLER (125 ASSTD + CARD ENVELOPES)		£14.95

(ENVELOPES AVAILABLE IN CARD OR BUSINESS SIZE) (£2.95-23.45)

POWDER BLUE / WINTER GREEN / YELLOW / FRENCH VANILLA / ORCHID

CENTURY PAK 100	PASTEL	£5.95
VALUE PAK (250)		£10.95
COLORBURST (125 ASSORTMENT)		£7.95
RAINBOW (250 ASSORTMENT)		£14.95
SAMPLER (125 ASSTD + CARD ENVELOPES)		£12.95

(ENVELOPES AVAILABLE IN CARD OR BUSINESS SIZE) (£2.60-19.45)

ALSO AVAILABLE IN CONTINUOUS FORM:- PARCHMENT IN NATURAL, AGED, BAHIA BLUE, LAVENDAR, OR TURQUOISE / LAID IN ICE BLUE, AQUA, IVORY, BUFF, PEARL GRAY / 21 DIFFERENT PREPRINTED DESIGNS ON WHITE / 5 PREPRINTED DESIGNS ON LAID COLOURS / BANNER ROLLS IN 3 BRITE COLOURS PLUS ARCTIC WHITE / BANNER ROLLS IN WHITE WITH 4 PREPRINTED DESIGNS / 5 PASTEL COLOUR LABELS / CLEAR LABELS / REMOVEABLE ADHESIVE LABELS / AUDIO CASSETTE LABELS / VIDEO CASSETTE LABELS / POSTCARDS / INDEX CARDS / FILOFAX PAPER / COLOUR & T-SHIRT RIBBONS

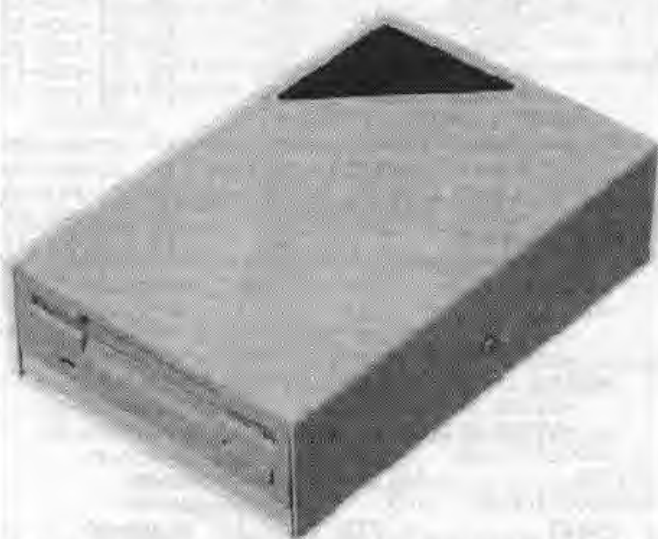
MGA SoftCat (0233) 83294 / 83571

PEAR TREE, APPLIEDORE, KENT TN26 2AR

3.5" 800K drive

(daisychainable)

£239.25 POSTFREE



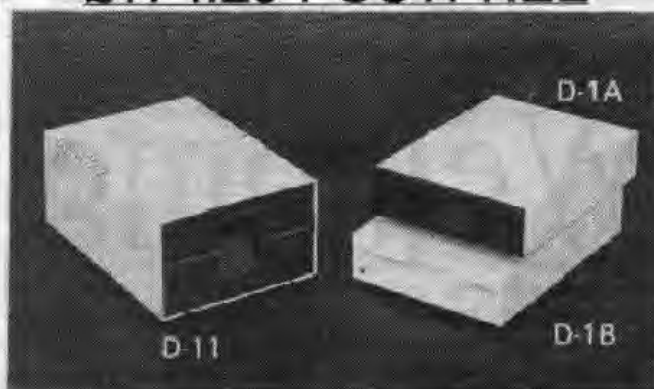
AMERICAN MICRO RESEARCH'S NEW DAISYCHAINABLE 3.5" DRIVE IS 100% COMPATIBLE WITH YOUR APPLE IIGS, MACINTOSH, or UDC. BUY IT WITH CONFIDENCE AT £100.00 LESS THAN THE COMPETITION, AND GET FREE DELIVERY IN THE UK! AMR ALSO HAVE A 5.25" 140K DAISYCHAINABLE DRIVE FOR £174.25 - £50.00 LESS THAN SOME OTHERS...

MGA SoftCat 0233-83294/83571

5.25" 140K DRIVE

(daisychainable)

£174.25 POSTFREE



AMERICAN MICRO RESEARCH'S NEW A-5-D DAISYCHAINABLE 5.25" 140K D-19 DISK DRIVE WILL COST YOU £50.00 LESS THAN THE COMPETITION, AND WE GIVE YOU FREE DELIVERY IN THE UK!

OTHER DRIVES AVAILABLE FROM MGA SoftCat INCLUDE:-

- ✓ APPLE DISK II 140K 5.25" 20-pin (2nd-user) £49.95
- ✓ APPLE DISK II 140K 5.25" D-19 (2nd-user) £59.95
- ✓ NPH 140K 5.25" 20-pin (black front) £89.95
- ✓ NPH 140K 5.25" D-19 (white front) £99.95
- ✓ LASER 800K 3.5" (not daisychainable) £195.00
- ✓ MGA SoftCat 0233-83294/83571

LABELS

LABELS

LABELS

Imagine a label printing system for your dot-matrix printer that allows you to use almost any size of custom label, card or sheet to create a self-adhesive design incorporating Print Shop-compatible fancy fonts, borders, mono graphics and even multicolour

graphics on colour printers! (Colour printers allow you to have different colours for the borders, fonts and graphics).

You can also merge information like mailing lists or product part details/stock numbers from AppleWorks files!

The amazing product that allows you to do this on a 128K //ecGS is called "Labels, Labels, Labels", and it costs just £39.95 postfree. (Separate versions available for //ec and IIGS, with IBM-PC to follow soon).

To support this great package we have 3 add-on borders disks, 10 fonts disks, 23 mono graphics disks, and 4 multi-colour graphics disks, (each at £4.00 postfree).

GREAT FOR BADGES & POSTCARDS

MGA SoftCat (0233) 83294 / 83571

AppleXtras

Welcome

AppleXtras has arrived! Those of you who have already subscribed to our value added service will have received your disk(s) with this issue.

It is still not too late to join the AppleXtras service. Send us £20 for one, or £35 for the two formats. If you already have subscribed to one of the disks and would also like the other, send us £15 and we will amend your subscription to include both and send you the other one.

The two disks are made up quite differently. Although both run under ProDOS, the 3.5 disk is destined for the IIGs only. It will self boot to Glen Bredon's ProDOS selector. On each 3.5 AppleXtras disk we shall include a folder with useful tools. These tools may change with each issue, and will eventually build in to a toolbox of routines that will handle files and do other useful things.

To save space, and therefore pack more programs onto the disk, the 5.25 disk has no bootable system. The programs on this disk are suitable for the IIGs, //e and //c, though there will be some programs from time to time that will run on the II+. These days there are relatively few programs appearing on the Public Domain network for the II+, so it is impossible for us to provide a disk for this format only.

It will be helpful to refer to the notes published at the beginning of the library catalog you received recently. These notes give details of how you should run and organise the programs you will find on these disks. As well as these notes, refer to the detailed descriptions published on the next pages. These notes will accompany each issue of the AppleXtras disk.

Finally a word about Shareware. Many of the programs that we shall provide on these disks are not Public Domain or Freeware. A royalty is due to the author if you decide to keep the program and use it. Please honour this system as it is up to you to see that these dues are paid. If you have difficulty getting dollars, get an American Express cheque.

Welcome

/XTRAS.P8.NO.1/		(5.25 disk)		
-SHRINKIT	DIR	1	6-JAN-90	
-IIPUS.UNSHRINK	SYS	25	2-SEP-89	
-IIPUS.SHRINKIT	SYS	24	1-MAY-89	
-STARTUP.NEW	DIR	1	7-JAN-90	
-STARTUP.NEW	BAS	8	16-AUG-89	
-AW3FIX	DIR	1	6-JAN-90	
-PATCHER.SYSTEM	SYS	26	2-DEC-89	
-PATCH.DOC	TXT	19	6-DEC-89	
-COLORTXT	DIR	1	6-JAN-90	
-README.DOC	TXT	28	15-NOV-89	
-COLORTXT.DEMO	BAS	10	15-NOV-89	
-COLORTXT.SAMPL	BAS	7	14-NOV-89	
-TEXT.BIN	BIN	6	15-NOV-89	
-STANDARD.ASC	BIN	4	28-NOV-89	
-RAMDISK	DIR	1	7-JAN-90	
-PROSEL.RAMDISK3	TXT	43	5-JAN-90	
-POPBOX	DIR	1	7-JAN-90	
-POPBOX	BAS	21	15-AUG-89	
-VIRUS.RX	DIR	1	6-JAN-90	
-RX.DOC	TXT	21	17-SEP-89	
-APPLE.RX	SYS	19	17-SEP-89	

/XTRAS.GS.NO.1/		(3.5 disk)		
-BOOT.SYSTEM	SYS	1	6-JAN-90	
-PROGRAMS	DIR	1	6-JAN-90	
-DAS	DIR	1	6-JAN-90	
-WRITEIT	DIR	1	6-JAN-90	
-WRITEIT	\$B8	14	12-NOV-89	
-ABOUT.WRITEIT	TXT	3	12-NOV-89	
-MPHASE	\$B8	25	17-NOV-88	
-MOUSE	\$B8	19	14-NOV-87	
-GS.GAMES	DIR	1	6-JAN-90	
-SOLITAIRE	DIR	1	6-JAN-90	
-SOLITAIRE	\$B3	51	12-DEC-88	
-CARDS.CLUBS	\$B0	26	9-DEC-88	
-CARDS.DIAMONDS	\$B0	26	9-DEC-88	
-CARDS.HEARTS	\$B0	26	9-DEC-88	
-CARDS.SPADES	\$B0	26	9-DEC-88	
-POKER	DIR	1	6-JAN-90	
-POKER.PIC	\$C1	65	24-FEB-89	
-POKER	\$B3	39	24-FEB-89	
-CARDS.SPADES	BIN	26	22-FEB-89	
-CARDS.HEARTS	BIN	26	22-FEB-89	
-CARDS.DIAMONDS	BIN	26	22-FEB-89	
-CARDS.CLUBS	BIN	26	22-FEB-89	
-MONTE.CARLO	DIR	1	6-JAN-90	
-CARDS.CLUBS	\$B0	26	22-MAR-89	
-CARDS.DIAMONDS	\$B0	26	22-MAR-89	
-CARDS.HEARTS	\$B0	26	22-MAR-89	
-CARDS.SPADES	\$B0	26	22-MAR-89	
-MONTE	\$B3	46	16-MAY-89	
-MONTE.HELP	TXT	3	17-MAY-89	
-PHOTONIX.BXY	TXT	282	18-NOV-89	
-DISK.MAP	DIR	1	6-JAN-90	
-DISK.MAP.DOC.EXE	TXT	8	28-DEC-88	
-DISK.MAP.SYSTEM	SYS	9	28-DEC-88	
-VIRUS	DIR	1	6-JAN-90	
-VIRUS.NOTES	TXT	23	21-JUL-89	
-VIRUS.KILLER	BIN	5	18-JUL-89	
-NUCLEUS.SHK	BIN	263	4-SEP-89	
-TITLE	\$C1	65	6-JAN-90	
-PRODOS.TOOLS	DIR	1	6-JAN-90	
-LIST	DIR	1	6-JAN-90	
-LIST.SYSTEM	SYS	67	1-APR-89	
-LIST.DESCR	AWP	38	1-APR-89	
-SHRINK	DIR	1	6-JAN-90	
-SHRINKIT.SYSTEM	SYS	1	31-MAR-89	
-SHRINKIT	SYS	72	20-JUL-89	
-SHRINKIT.DOC	TXT	61	19-JUL-89	
-SHRINKIT.ICON	\$CA	4	10-AUG-89	
-PRODOS	SYS	32	8-JUL-88	

AppleXtras 5.25 ProDOS disk for the IIGs, //e and //c

ShrinkIt folder - ShrinkIt is the file transfer protocol used by TABBS and other bulletin board systems. Files compressed with ShrinkIt or packed under Binary II will have one of the following suffix: .BNY .BQY .BXY .SHK They must be unpacked with ShrinkIt for use once they have been downloaded. As the ShrinkIt process also allows disks to be compressed, we shall sometimes use this for file on the AppleXtras disks.

IIPlus.Unshrink - The un-shrink program for the II+

IIPlus.ShrinkIt - and the companion shrink program.

StartUp.New folder

StartUp.New - A custom program selector that allows you to select from 13 of your favourite programs. Easy to configure, just list the program from Basic to see what to do.

AW3Fix Folder

Patcher.System - From Beagle Bros., the first authentic patch for the bugs in AppleWorks 3.0

Patch.Doc - Read this file with List.System or Writelt to find out how to use Patcher.System.

ColorText folder - Coloured text from the double HiRes screen

ReadMe.Doc - Complete instructions of the ColorText system.

ColorText.Demo - Self running Basic demo of ColorText.

ColorText.Sampl - List this Basic program to see how to use the ColorText system.

Text.Bin - code routines

Standard.ASC - standard character set

RamDisk folder

ProSel.RamDisk3 - Text file describing how to install AppleWorks 3.0 on a RamDisk using ProSel.

PopBox folder

PopBox - Basic program routines that allow you to use pop-up boxes from within your programs. Run the program for a demo, and then list it to see how to use the routines.

Virus.RX - Requires 65802 or 65816 processor

RX.Doc - The documentation for Apple.RX

Apple.RX - A virus medicine that checks for the presence of a virus and will warn you of any programs that have been corrupted. You should then replace the infected programs with fresh copies from your master disks.

AppleXtras 3.5 ProDOS disk for the IIGs

Boot.System - Boot program that displays the Title screen

Programs folder - The Xtras goodies folder!

DAs folder - Desk Accessories should be placed in the DESK.ACCS folder of your system disk

Writelt folder

Writelt - A handy Text reader and Word Processor in an NDA

About.Writelt - details of how to use Writelt NDA

Mphase - Displays the current phase of the moon graphically.

Mouse - Mr Mouse displays the current position of the mouse on the screen. Invaluable for software developers.

GS.Games folder - 3 Classic card games

Solitaire folder

Solitaire - The classic game of patience.

Cards.Clubs - Data files used for the graphic display.

Cards.Diamonds

Cards.Hearts

Cards.Spades

Poker folder

Poker.Pic - Title screen

Poker - Play poker and lose your shirt!

Cards.Spades

Cards.Hearts

Cards.Diamonds

Cards.Clubs

Monte.Carlo folder

Cards.Clubs

Cards.Diamonds

Cards.Hearts

Cards.Spades

Monte - Play the Monte Carlo game of patience and try and beat the clock!

Monte.Help - Read this with List.System or Writelt to see how to play.

Photonix.BXY - The disk copier to end all disk copiers! This offering from France will, blow your socks off. You have never seen anything like it before! Extract to a blank 3.5 disk with ShrinkIt and then boot. Don't forget to take a look at the '?'. Detailed instructions are on the disk in an AppleWorks file. Use List.System to view these.

Disk.Map folder

DiskMap.Doc.Exe - From Basic, type 'DISKMAP.DOC.EXE' to list the instructions. This by the way is the neatest way of listing a text file to screen that I have seen. It uses the power of EXEC files and Basic to the full. Use List.System to see how it was achieved.

Disk.Map.System - Program to map out all the used blocks on a disk showing where the directories and files lie.

Virus folder

Virus.Notes - Virus history on the Apple II and how to fix attacks.

Virus.Killer - Clears attacks of Lode Runner virus.

Nucleus.SHK - Brought to you from the same stable as Photonix, this demonstration of the sound and graphic capabilities of the IIGs is all the more amazing when you consider that the IIGs toolbox has not been used! Most of the commands are available from the keypad, check each key out in turn to see the various options of the program. To see Nucleus working, you should extract to a blank 3.5 disk using ShrinkIt, and boot the resulting disk.

Title picture - Our AppleXtras title picture.

ProDOS.Tools folder

List folder

List.System - This is a most useful display tool. List.System will display any kind of file, and will attempt to display as text if it can, and displays AppleWorks text files correctly. It can also be used to print a file as well.

List.Descr - Details of how to use List.System

Shrink folder

ShrinkIt.System - Boot file to start ShrinkIt.

ShrinkIt - The //e, //c and IIGs version of this outstanding archive program.

ShrinkIt.Docs - Details of the program and update history.

ShrinkIt.Icon - Place this in your ICONS folder.

ProDOS system - ProDOS 8 V1.4 B modified with Glen Bredon's Selector program.

Library Update

We add new disks to the library, and read you your rights!

We have added three new disks to the IIGs library, and have started a new section for 5.25 master System Disks.

As there have been a few requests recently from members who have obtained secondhand Apple II machines without System disks, we have added the DOS 3.3, ProDOS and CP/M master disks to a new library section. However we must point out that all System disks in our libraries are subject to license arrangements with Apple UK and Microsoft.

We publish the Apple license agreement opposite, and ask you to read this before using any of the System disks.

IIGs 3.5 library

2GS022 - System Disk 5.0.2

2GS023 - System Tools 5.0.2

These two disks make up the complete and latest System 5.0.2

2GS024 - Update disk to update your existing System 5.0 disks to 5.0.2

Apple II 5.25 library

S001 - DOS 3.3 Master (The classic DOS 3.3 Master disk).

S002 - DOS 3.3 Basics pre-boot disk. Allows you to boot 13 sector DOS 3.2 disks.

S003 - DOS 3.3 //e Master disk for the //e only. Includes utilities and sample files.

S004 - ProDOS 1.8 Master disk for 64k //e, //c and //+.

S005 - ProDOS 1.0.2 //c Master and utilities disk.

S006 - Microsoft CP/M 2.2.3 60k Master boot disk and utilities. Requires a Microsoft Z80 card.

Order library disks from:

Apple2000
PO Box 3
Liverpool
L21 8PY.

3.5 library disks are £4.50 each and 5.25 disks are £4.00 each. Price includes P&P and VAT.

YOU SHOULD CAREFULLY READ THE FOLLOWING TERMS AND CONDITIONS BEFORE USING THIS SOFTWARE ANY REPRODUCTION, COPYING OR OTHER USE OF THE SOFTWARE WILL CONSTITUTE ACCEPTANCE OF THESE TERMS AND CONDITIONS. IF YOU DO NOT AGREE WITH THEM, YOU SHOULD ERASE THE CONTENTS OF THESE DISCS.

SINGLE-COMPUTER END USER SOFTWARE LICENSE AGREEMENT

APPLE COMPUTER, INC. ("Apple") provides this software and licenses its use. You assume responsibility for the selection of the software to achieve your intended results, and for the installation and use of, and results obtained from, the software.

LICENSE

Pursuant to this license you may:

1. Use the software only on a single Apple computer. You must obtain a supplementary license from Apple before using the software in connection with systems and multiple central processing units, computer networks or emulations on mainframe or minicomputers.

2. Use the software only on media that is compatible with Apple manufactured computers.

3. Copy the software into any machine readable form for backup purposes in support of your use of the software on the single Apple computer.

4. Transfer the software and license to another party with a copy of this Agreement provided the other party reads and agrees to accept the terms and conditions of this Agreement. If you transfer the software, you must at the same time either transfer all copies, whether in printed or machine-readable form, to the same party or destroy any copies not transferred. Apple grants a license to such other party under this

Agreement and the other party will accept such license by its initial use of the software. If you transfer possession of any copy of the software, in whole or in part, to another party, your license is automatically terminated.

This software is protected by United States copyright law. You must reproduce the Apple copyright notice on any copy of the software.

YOU MAY NOT MODIFY, REVERSE COMPIL, DISASSEMBLE, NETWORK, RENT, LEASE, LOAN OR DISTRIBUTE THE SOFTWARE, OR ANY COPY, IN WHOLE OR IN PART. YOU UNDERSTAND THAT UNAUTHORIZED REPRODUCTION OF COPIES OF THE SOFTWARE OR UNAUTHORIZED TRANSFER OF ANY COPY OF THE SOFTWARE MAY SUBJECT YOU TO A LAWSUIT FOR DAMAGES, INJUNCTIVE RELIEF, AND ATTORNEYS FEES.

Apple reserves all rights not expressly granted to you.

Export law assurances

You agree and certify that neither the software and documentation nor any direct product thereof (1) is intended to be used for nuclear proliferation or any other purpose prohibited by the United States Export Administration Act of 1979, as amended (the "Act") and the regulations promulgated thereunder, and (2) is being or will be downloaded, shipped, transferred or reexported, directly or indirectly, into any country prohibited by the Act and the regulations promulgated thereunder.

Government End Users

If you are acquiring the software on behalf of any unit or agency of the United States government, you agree that: (a) the software is "Commercial Computer Software" as that term is defined in Paragraph 27.401 of the DoD Supplement to the Federal Acquisition Regulations (the "Supplement") or is within the equivalent classification of any other federal agencies' regulations; (b) the software was developed at private expense, and no part of it was developed with government funds; (c) the government's use of the software is subject to "Restricted Rights" as that term is defined in clause 52.227-7013 (b)(3)(ii) of the Supplement or in the equivalent clause of any other federal agencies' regulations; (d) the software is a "trade secret" of Apple for all purposes of the Freedom of Information Act; and (e) each copy of the software will contain the following Restricted Rights Legend: "Restricted Rights Legend"

Use, duplication or disclosure is subject to restrictions as set forth in subdivision (b)(3)(ii) of the Rights in Technical Data and Computer Software clause at FAR 52.227-7013. Manufacturer: Apple Computer, Inc. 20525 Mariani Avenue, Cupertino, California 95014.

You agree to indemnify Apple for any liability, loss, costs and expense (including court costs and reasonable attorneys' fees) arising out of any breach of the provisions of this Agreement relating to use by the government.

Term

The license is effective until terminated. You may terminate it at any time by destroying the software together with all copies. The license will also terminate upon conditions set forth elsewhere in this Agreement or if you fail to comply with any of the terms or conditions of this Agreement. You agree upon such termination to destroy all copies of the software.

Disclaimer of Warranty

The software is provided "as is" without warranty of any kind, either express or implied, with respect to its merchantability or its fitness for any particular purpose. The entire risk as to the quality and performance of the software is with you. Should the software prove defective, you (and not Apple or an Apple authorized representative) assume the entire cost of all necessary servicing, repair or correction.

Apple does not warrant that the functions contained in the software will meet your requirements or that the operation of the software will be uninterrupted or error free or that defects in the software will be corrected.

Limitation of Remedies

In no event will Apple be liable to you for any lost profits, lost savings or other incidental, special or consequential damages arising out of the use of or inability to use any software even if Apple or an authorized Apple representative has been advised of the possibility of such damages, or for any claim by any other party.

Apple's liability to you for actual damages for any cause whatsoever, and regardless of the form of the action, will be limited to the greater of \$500 or the money paid for the software that caused the damages or that is the subject matter of, or is directly related to, the cause of action.

General

This Agreement, if any attempt to network, rent, lease, or sublicense the software, or, except as expressly provided in this Agreement, to transfer any of the rights, duties or obligations under this Agreement, becomes void.

Corruption and Sub Battle

Keith Rookledge gets corrupted and Robert Hornby goes under in the search for the perfect game

CORRUPTION

This review deals with a new release from Magnetic Scrolls called Corruption. I have not played this type of game before, having restricted myself to the Wizardry scenarios, Avatar and more recently Might & Magic.

Well I shall start from the beginning, always the best place. The game comes boxed in the familiar Blue and consists of three discs, a cassette tape, no don't get worried you listen to it! and a set of instructions.

The first action is to back up the discs using a copy program. You can use CopyA but I used Diversi-Copy as I wanted to check my disc speeds.

Once you have carried this out you boot the system disk and then operate from two discs, although you can operate from one drive, two are obviously better. The system gets itself up and running and the first screen gives some indication as to what is going (or not) on. The instructions suggest that you read everything and I am sure that is a good idea as you need all the information that you can get to sort the plot out.

Once you have read the first screen the subsequent screens consist of a few lines of text at the bottom and "graphics" at the top part. The graphics are of a low resolution and in addition, when text is replaced, it scrolls so quickly that it is difficult to read. When the graphics are replaced all the screen is revealed for a short time. I felt that the "graphics" do nothing to the game and it would operate better without them. It is possible that some clues could be lost but it would lead to a better "view" of the text. There is a print facility and this is essential, but you will end up with a lot of paper and I feel that is not what Apple games should be about.

Incidentally the game is for all IIs from Plus to GS and can work, so it says, without a 80 column card. I tried it on my IIe and even with only 64k the "graphics" worked.

Once you have assimilated all the preliminary information and extracted the clues the game proper begins. It is a text game with your input interacting with the computer. The instructions give you sufficient information to get going and as you

progress through the game you become more expert at the "Questions" to elicit information. I am not going to give away any details, it would spoil the fun!

There is a lot of information to assimilate and a pen and paper are essential. You have to move round your office to converse with different people and also to look into drawers etc. so mapping is a part of the game. Directions to move are given by commands such as "Go North" etc. You are told to talk to people and to ask them questions, which again is carried out by simple commands.

What happens when you get stuck or for that matter cannot get going? Well, there is a Filofax insert containing clues and a list of "Cypheric Hints". These I found very laborious to use. You have to type in up to 60 series of two letter codes, to elicit a response to your request for a hint and one error on entry causes a reject of your request for help. In addition there are about 100 series of hints to choose from and it is difficult to decide which one corresponds to your current situation. I consider that this was a most laborious system to use but having said that as it operates on all IIs then the system obviously cannot be too sophisticated otherwise it would not be so flexible.

Also in your Filofax pages are a section of names and addresses, some expense details from which information can be gained when you find where they apply.

Well for those of you who like this type of game or are restricted by your Apple the game would give good value for money. However I had reservations about it as detailed above. When you see some of the products coming out of the States for the GS it shows you what graphics are all about. I feel that if this type of game is going to be produced it is best to stick with pure text. Simple low res graphics in front of my eyes were not conducive to good gaming.

Would I buy it? Yes if I had a II+ as I am sure that it is good value but for a GS or IIe with extras then I feel that it is worth spending the extra on a more up market product.

Keith Rookledge

Product : Sub Battle

Publisher : Epyx

Available from :

MGA Softcat

41 Cinque Port Street

RYE

E Sussex TN31 7AD

(0797) 226601

Price : £9.95 (Usually £19.95)

£19.95 Iigs version

Value : ★★★★★

Performance : ★★★★★

Documentation : ★★★★★

SUB BATTLE

Sub Battle is a submarine simulator set in the Second World War. You start off by choosing which side you want to be on. The Americans, who are fighting Japan and Germany who are fighting the Americans and the British. The game itself starts when you get your mission. Altogether on the game there are sixty. Then you choose level of difficulty (1-4) and the game starts.

You start off at your home port and will travel to your mission destination by either map or by a special feature the Navigator. This plots your course for you and speeds up time and gets you there more quickly. Once there you will carry out mission orders and return. The missions given range from interception to patrol.

The graphics for the game are pretty good but the enemy ships could have a different colour other than black especially at night because you cannot see them. The inside of the sub is well drawn showing all the details needed including speed, damage reports, maps, data readout on enemy ships, and also radar and sonar.

The game has tried to show what it was like on board a sub and Epyx have done this well. All missions are accurate. The best mission being THE BATTLE OF MIDWAY. The maps are also well drawn and accurate (checked in Atlas). The only problem with the game is when running aground I found myself plonk in the middle of Australia about 175 miles in. Imagine moving about on land in the sub asking for directions to the sea!

The documentation is good and well written showing tactics Americans and Germans used in the war and also showing pictures of ships found in the game. Also comes with keyboard reference (I'm telling you, you need it!) and catalogue. It is good priced at £9.95 and is a great game enjoyed greatly by me.

Robert Hornby (aged 13)

Apple ///

Mike Kramer tells how to install and change drivers on the Apple ///

INSTALLING AN APPLE /// DRIVER or What Have I Gotten Myself Into?

By Mike Kramer
Houston Area Apple Users Group
(Apple Orchard, Vol. 4, Num. 7, October 1983)

The Initial Shock

When my office Apple /// arrived a little over a year ago, everyone was anxious to see what it could do. This naturally included seeing it print something. After impressing everyone with being able to enter a simple VisiCalc spreadsheet without reading the manual, I lost all credibility when it wouldn't print anything on the Epson printer. After they left, I got out the owner's manual and discovered that Apple /// software normally comes configured for serial printers connected to the built-in serial port. For me to print on the Epson printer connected to the Universal Parallel Interface Card (commonly called a UPIC) in Slot 1, I needed to install and configure a parallel driver. What's more, I needed to do this with every boot disk I had or would ever have, that would use the parallel card.

What I didn't realize at that point was that the source of my "difficulty" was in fact one of the outstanding features of the Apple ///. That feature is Apple ///'s ability to execute programs written with little regard to what kind of output device would be used (also known as device-independent I/O).

Without the programmer knowing ahead of time where program output will go, output from Apple /// programs can be directed to a printer, the screen, a named diskfile, etc., at run time.

The price we pay is having to generate appropriately configured drivers into any new software we get. Not much of a price when you know how, and you should know how to install drivers if you intend to use an Apple //. This is particularly so since generating drivers for the Apple /// is not something the typical store person knows very much about (there are exceptions, however). So after this rambling introduction, get out your

Standard Device Drivers Manual and, if you have one, the UPIC Parallel Interface Installation and Operating Manual, and let's find out how to do it

What is a driver?

First, let's review what a driver does. The Standard Device Drivers Manual describes peripheral devices such as the keyboard, video display, speaker, and input/output (I/O) ports as the "senses" of the computer. I.e., the eyes, ears, etc. These senses are connected to the Sophisticated Operating System (SOS) by device drivers which perform four functions:

- Process data generated by programs and send it to the devices as output.
- Process data generated by the device and send it to programs as input.
- Permit programs and SOS to control the device and the driver itself.
- Permit programs and SOS to read the status of the device and the driver.

Most of you don't need to be concerned with the specifics of what the drivers do, but it should help your understanding if you're generally aware of what they do and why they are there.

System Configuration Program

One of the disks provided with the Apple /// is the System Utilities Disk, which includes the System Configuration Program (SCP). This is the tool for adding or removing device drivers, or changing the parameters that control their operation. You may have noticed when cataloguing disks that every bootable disk has three special files named SOS.KERNEL, SOS.DRIVER, and SOS.INTERP. SOS.KERNEL is SOS itself. SOS.INTERP is the machine language "interpreter" which runs on bootup. This can be Business BASIC, Pascal, Apple Writer ///, VisiCalc, etc. Unless you become very, very good with the Apple /// you will never create your own SOS.INTERP.

SOS.DRIVER contains the system configuration, including the drivers

and their control parameters, the number of disk drives connected, the video display character set, the ASCII character codes assigned to each key on the keyboard, and the slot assignments for any interface cards plugged into the connectors inside the Apple.

Reading a Driver File

First, let's find out which drivers are in fact currently on a boot disk. Place your System Utilities diskette in the built-in drive and boot it. Next, run the SCP by moving the cursor to the third line and pressing RETURN. To look at and possibly change any of the information defining how your Apple /// operates, tell the SCP to READ in the SOS.DRIVER file from the diskette of interest by placing the cursor over "Read a Driver File" and pressing RETURN.

Why not read in the SOS.DRIVER file from the Utilities diskette itself and configure it (you are using a backup copy of the original disk, aren't you), so that you can list directories on your printer rather than always listing on the screen. The SCP defaults to .D1/SOS.DRIVER, so all you have to do is press RETURN. To read from a disk in the external drive, change .D1 to .D2 before pressing RETURN.

After a few seconds, the current driver configuration will be displayed on the screen as shown on Page 12 of the Standard Device Drivers Manual. Note that each driver has a unique name beginning with a dot (looks suspiciously like a period). A driver can have any name as long as it begins with a dot (period) followed by a letter, is not more than 15 characters long, and contains only letters, numbers, and periods. Also note that an asterisk in front of a driver name means that driver is included in the driver file but is inactive. When flagged as inactive, that driver is not loaded into memory on bootup and cannot be accessed during program execution. The benefit of doing this is that you don't use up memory with drivers you are not currently using.

When you have finished reading the driver names press ESC to return to the SCP menu.

Editing Driver Parameters

Next select the "Edit Driver Parameters" option on the SCP menu. The driver file you read into memory earlier probably had a driver named .PRINTER. On a new boot disk, this is most likely a serial driver. You can find out what it is by moving the cursor to highlight .PRINTER and pressing "RETURN". You will then see a display which lists the device name, the type, the subtype, the activity status, comments, and driver configuration block information. At this point you are interested in whether the device is serial or not. You can usually assume .PRINTER is serial if the slot is indicated as "n/a", which

indicates .PRINTER has been assigned to the built-in port. Unfortunately, few people bother to use the comments line to document in English how the drivers were configured.

If you are installing a parallel driver, you will probably name it .PRINTER, since this is generally accepted as the name of the most commonly used driver. Rather than delete the serial driver from the disk, give it another name such as .SPRINTER and deactivate it. You may want to use it later when you get your serial letter quality printer. While you're at it, use the comments line to indicate that this is a serial driver.

Adding a Driver File

Assuming you're adding a parallel driver, insert the disk included with the UPIC card in one of the drives (we'll assume Drive 2). Press "ESC" twice to exit the Edit Driver Parameters display and return to the SCP menu. Once again select the "Read a Driver File" option. This time, when asked for the pathname of the driver file, type ".D2/PRINTER.DRIVER". This will cause the parallel printer driver file to be read from the UPIC disk. Note that PARALLEL.DRIVER on the UPIC disk is intended for communication between computers using a parallel interface and should not be used here. Note that the new driver's name has been added to the end of the list of drivers and that you

may have two drivers with the same name. Press "ESC" to return to the SCP menu.

Configuring the New Driver

The next step in this adventure is to configure the parallel driver for your particular printer and tell SOS in which slot your parallel interface card has been installed. To configure the driver, once again select "Edit Driver Parameters". The driver name will be .PRINTER, so you will probably have no need to change it. It will also be active. You should make an entry in the comments line to indicate what printer you are using.

Now for the hard part: tailoring the values in the Configuration Block for your printer. The Configuration Block can contain up to 255 values arranged in up to 16 rows or 16 values (the last row has 15). These values are used with serial drivers to specify baud rates, with the Silentype to control heating of the dots in the print head, etc. With the parallel driver, five values are used to tell the driver (1) what control signals in the cable are to be monitored, (2) what the normal values are, (3) whether the printer generates its own line feeds, (4) the polarity of the printer handshake signals, and (5) the printer response timeout. To find out what these values should be for your printer, look on Page 19 of the UPIC manual. Enter these values into the Configuration

Block. If you do not see your printer listed, try using "00 00 00 00 0A". Press "ESC" to return to the parameter list. When you are satisfied that they are all correct press "ESC" to return to the SCP menu.

Changing System Parameters

All that remains is to tell the system where the parallel card is installed. This is done by selecting the "Change System Parameters" option. You will be shown a list of the current system parameters. Select the "Peripheral Slot Assignment" option to list the slot assignments. Most assignments will say "n/a", indicating built-in slots. To change a slot assignment enter the number of the driver as shown on the display. When you are asked for the slot assignment, type it in. If you are unsure of the slot assignment, look at the openings in the back of the Apple and see which one has a filler plate labelled "Universal Parallel Printer Interface". From the rear, Slot 1 is on the right.

Note that it's possible to have two or more drivers assigned to the same slot. This would be done, for example, if you wanted to use both a dot matrix printer as a draft printer and a letter quality printer from the same program using the same interface and a switch box.

Press "ESC" to return to the listing of the Current System Parameters. Press "ESC" for the SCP menu.

APPLE // PUBLIC DOMAIN SOFTWARE

Reduced in Price ! All disks now only £1.50
Over 250 disks, many new this year

Enhancement kit for //e £48.00 • Universal Joystick £23.00 • Star LC-10 Printer £199.00

Bulk 5.25" disks £4.50 for 10 • Bulk 3.5" disks £ £6.50 for 10

Computability, FREEPOST, Hedge End, Southampton, Hants, SO3 4NF

Telephone (0489) 786229



Generating a New System

The final step is to generate a new system that incorporates the new configuration information and install it on the disk. Select "Generate New System". There are two functions performed in system generation, validation of the configuration and storing of the new configuration on the disk. When validation is successfully completed, you will be asked for the name of the file where the new configuration is to be saved. You do not have to name the file `SOS.DRIVER` at this point. In fact you can create a disk containing nothing but system configurations for different applications and transfer these to your boot disks as needed. They do have to be named `SOS.DRIVER` to be loaded on bootup and used.

If you decide to store the driver file on your disk under the name `SOS.DRIVER` and a file exists under that name, the SCP will ask if you want to replace it. If you answer yes, the old `SOS.DRIVER` will be lost. You might want to name it `NEW.DRIVER` at this point and preserve the original `SOS.DRIVER` file. When System Generation is complete, select the "Quit" option. If you have not performed a new system generation, a warning will be given and you will have to indicate that this is in fact what you want to do.

If you preserved the original `SOS.DRIVER` but want to try the new configuration, enter the Filer section of the Systems Utility and rename `SOS.DRIVER` something like `OLD.DRIVER`. Then change the name of `NEW.DRIVER` to `SOS.DRIVER`. If all went well, you should be able to print on your parallel printer when you reboot using the modified boot disk. If the printer doesn't work, start over and pay close attention to which parallel driver is read in, what slot is specified, and what Configuration Block information is entered. If the printer prints, but does strange things, the Configuration Block is likely to be the problem.

So there you have it. No longer will you wonder why your printer does either weird things or nothing at all when you tell it to print, and you'll enjoy the flexibility of configuring drivers for anything and everything.

Mike Kramer

CHANGING AN APPLE /// CP/M DRIVER FILE

By Mike Kramer
Houston Area Apple Users Group
(Apple Orchard, Vol. 4, Num. 7, October 1983)

Although the procedure to add, change, or delete a driver under Apple /// CP/M is similar to that under SOS, it requires more steps and the steps required are not intuitively obvious. This discussion attempts to

summarise those steps, but is not intended as a substitute for the manuals.

Because of constraints in the CP/M system, the peripheral driver file is named `DRIVER.SOS` rather than `SOS.DRIVER`. As supplied by Apple, the CP/M system knows about the console, Silentype, and serial drivers. It is totally ignorant of parallel devices. Your task is further complicated by the fact that CP/M only knows about four physical devices, consoles (CON:), tape readers (RDR:), tape punches (PUN:), and system printers (LST:). It permits up to four logical devices per physical device. Your driver file, however, can have as many drivers as you want within memory constraints. You just can't access all of them easily. A further complication is that apparently you can't look at the contents of the driver configuration blocks once the driver file is placed on the CP/M disk. You can see what drivers are included and which are assigned to the CP/M logical devices.

Preparing the Driver File

The first step in adding to or changing the CP/M `DRIVER.SOS` file is to boot the Apple /// SOS Utilities Disk. Since the procedure for preparing a driver file is well documented in Chapter 2 of the Standard Device Drivers Manual it will not be discussed here. The main point to remember is that you start the procedure under SOS, not CP/M. Further, you should store the driver file on the CP/M Utilities Diskette under the name `DRIVER.SOS`. If you name it `SOS.DRIVER` you would overwrite the `SOS.DRIVER` file on the utilities diskette, which you may not want to do.

Transferring Driver from SOS to CP/M

Insert the CP/M System diskette in the built-in drive (Drive A:); insert the CP/M Utilities Diskette in the external drive (Drive B:); and boot the system. Next type "SOSXFER" to run the SOS-to-CP/M file translation program. After an asterisk appears, type the following:

```
B:DRIVER.SOS = A:SOS.DRIVER
```

If you do not want to change the driver file on the CP/M System diskette, you will need to specify a different destination name on the left side of the "=" which would have to be used through the rest of the procedure described below.

After you specify the source and destination files and press RETURN the screen will then display:

```
Insert SOS disk into drive A:  
Insert CP/M disk into drive B:  
Press RETURN to begin
```

When the transfer is complete, the message "Transfer complete" will be

displayed.

For more detail on the use of SOSXFER, see Page 74 of the Softcard /// Installation and Operation Manual.

Configuring CP/M I/O

Replace the SOS disk in Drive A: with the CP/M System Diskette, press Control-C to do a warm start, and run the configuration program by typing "CONFIG". CONFIG will list the names of all the drivers in the `DRIVER.SOS` file, along with the current CP/M device assignments. Likely the device assignments will show that `CON:=CO1` and that `CO1:=CONSOLE`. Also, it will probably show that `LST:=LS1` and that `LS1:=PRINTER`. If you named the parallel driver `PRINTER` then you are all set. If you wanted a Silentype to be the system printer and it is listed as `LS2`: you would just type `LST:=LS2`. When the device assignments are as you want them, type END or a Control-C. You will then be asked if the changes should be made permanent. If you answer "YES", they will be written back to the built-in drive.

See Page 52 of the Softcard /// Installation and Operation Manual for a sample display and detailed explanation of the use of the CONFIG utility.

Transferring DRIVER.SOS to Other Disks

Place any diskette on which you wish to have the new `DRIVER.SOS` file placed into the external drive (B:). Leave the CP/M System disk containing the new `DRIVER.SOS` in the built-in drive (A:). Press Control-C to tell CP/M a disk was changed. If you don't, you will get an error when you try to write to it. Next erase the `DRIVER.SOS` file on the disk in the external drive with the following command:

```
>ERA B:DRIVER.SOS
```

Next transfer the new `DRIVER.SOS` from the CP/M System disk with the following command:

```
>PIP B: DRIVER.SOS=DRIVER.SOS
```

When this operation is complete, you should have a disk with the desired I/O configuration, assuming that you did everything correctly. If you want the same I/O configuration on another disk, just PIP it.

Mike Harmer

These two articles by Mike Kramer of the Houston Area Apple Users Group, were first printed in Apple Orchard the journal of the International Apple Core.

How to Avoid Surprises with AppleWorks 3.0

William Marriott of Claris Technical Support gives us the lowdown on AW 3.0

Many users call Claris Technical support with questions about the new version of AppleWorks, the most significant upgrade to the program since its introduction seven years ago. This article answers some of the most common questions about AppleWorks 3.0.

Has the new version of AppleWorks caught you off-guard? Perhaps your printer no longer works like it used to, or a feature that you used often has changed. Read this article for solutions and explanations to some of the most commonly asked questions about AppleWorks 3.0:

Q. I use a mouse with my old copy of AppleWorks to choose commands from menus and navigate in the spreadsheet. Why did Claris remove this feature from AppleWorks 3.0?

A. AppleWorks has never supported a mouse. Many programs which customized AppleWorks features were available for earlier versions of the program. If a friend or your dealer configured AppleWorks for you, your copy may have been "enhanced" with extra features like time and date display, screen savers, customized error bells, cosmetic changes to the AppleWorks screen, and macros.

Since you could use a mouse with the older version of AppleWorks, you most likely had a "macro" enhancement installed. Your copy of AppleWorks has been modified if you have a file called "ULTRA.SYSTEM" or "SUPER.SYSTEM" on your disk. If you wish to use the mouse (or other enhancements) with AppleWorks 3.0, you will need to install new versions of the add-on software. UltraMacros 3.0 is compatible with the new AppleWorks, and adds mouse capability. A 50% discount coupon for UltraMacros is included with the 3.0 upgrade. The special offer for TimeOut UltraMacros expires at the end of the year.

Q. Is AppleWorks 3.0 compatible with my accelerator card? My cursor flashes much more slowly in AppleWorks 3.0 than it did in 2.1.

A. Your accelerator card is still functioning and speeding up AppleWorks operations. In older versions of AppleWorks, using an accelerator card (or using AppleWorks on an Apple IIgs) caused the cursor to blink very quickly. In fact, some of the newer chips made the cursor flash so fast it was hard to find on the screen. In AppleWorks 3.0, the cursor is programmed to flash at the same rate whether you have an accelerator card or not. Other parts of AppleWorks have also been changed to accommodate accelerator boards. For example, when AppleWorks performs a sort, it no longer lists the time it will take to complete the task. Instead, a "progress bar" shows you the rate at which the task is being completed.

Q. I have a No-Slot clock, which worked fine with version 2.1, but no longer seems to work with AppleWorks 3.0. Does version 3.0 support clocks?

A. AppleWorks supports ProDOS-compatible clocks. For example, if you use AppleWorks 3.0 with an Apple IIgs,

you do not need to enter the date or time when you start AppleWorks. Also, your files will be "stamped" with the time of their modification.

The No-Slot clock is not normally ProDOS compatible. You make it compatible by modifying ProDOS with a special "patch." The ProDOS shipped with AppleWorks 3.0 does not include this modification. If you have an older (patched) version of ProDOS, you can copy it from your AppleWorks 2.1 disk to the ProDOS disk supplied with AppleWorks 3.0. Your clock should then work properly.

Q. I have a large data base created in AppleWorks 2.1 on two 5.25-inch disks. When I try to open this file in AppleWorks 3.0, I get an error message and I can't open the file.

A. If you have extra memory in your computer, you can create files that are too large to fit on standard 5.25-inch disks. You need to save the file to a larger disk: either a 3.5-inch disk, which holds 800K; or a hard disk, which will hold at least 5 MB (about 5,120K), depending on the hard drive. For earlier versions of AppleWorks, memory board manufacturers offered a utility that allowed users to take advantage of all the memory in their computer, without purchasing additional disk drives. These utilities modified AppleWorks to "segment" files to two or more disks when saving large files. If you have segmented files that you wish to use with AppleWorks 3.0, you have the following options:

☐ Wait for the memory card manufacturer to release a compatible version of the utility. Applied Engineering and Checkmate have promised new versions of their utilities that will be compatible with AppleWorks 3.0.

☐ Purchase a 3.5-inch disk drive or hard disk. To open large files in AppleWorks 3.0, open the files from a disk copy using AppleWorks 2.1. Copy the files to a 3.5-inch disk drive or hard disk. You will then be able to open the files from the 3.5-inch disk drive or hard disk with AppleWorks 3.0.

☐ Segment the file into chunks that can fit on a single disk, then combine the files in memory. Use AppleWorks 2.1 to open the large file and then manually segment it across two or more disks. Open the file with AppleWorks 3.0 and then combine the files in memory. A final note: because of its additional features, AppleWorks 3.0 uses 16K more memory than older versions. If you had files that were near the limit of the Desktop, you may not be able to open them in AppleWorks 3.0. If you have files you are unable to open, you will have to make the files smaller or purchase additional memory, if you want to take full advantage of the new version.

Q. I installed my Epson printer using the AppleWorks Printer Information setup menu. When I try to print, garbled text and extra characters appear on the printout. The AppleWorks codes are different than the codes in my printer manual, so I changed the codes to match the printer manual. The printer still doesn't work properly, even when I add it as a custom printer. What am I doing wrong?

A. You installed your printer correctly. Unfortunately, there is a problem associated with removing printers from the printer list that was discovered after Claris shipped AppleWorks 3.0. The problem is not limited to Epson or ImageWriter printers. For the most reliable printer setup, do not remove the ImageWriter from the printer list. Recopy the AppleWorks program disk and add the Epson printer to the printer list. Your printer should work properly.

Q. I added a header to an AppleWorks word processor document using different tab settings than those used in the body text. When I print out the document, the first page prints properly, but subsequent pages use

the header tab settings for the body text. What's happening.

- A. The header resets the current tab settings whenever it prints. For example, you might set up a header with only one tab stop, a center tab, for the page number. The body of your text might use a more complex tab settings for columns and indented paragraphs. The tab settings for the body text will be in effect until the header prints on the second page. When the header prints on the second page, the tab settings reset to the header tab settings. The header tab settings remain in effect for the rest of the printout. If you want to have two separate rulers for your body and header, insert the ruler for body text before the Page Header End command.

Q. I like the ability to have multiple-line headers and footers, so I added a 15-line footer to my document. When I print the document, it prints past the perforation on my paper! How can I correct this?

- A. Printing can become erratic if there are more than nine lines in a header or a footer. Unfortunately, there is no solution to this problem other than using fewer lines in your headers and footers.

Q. I have a Brother printer that I use with AppleWorks 3.0. Although, I set the "Needs line feed after each return" option in the "Add a Printer" menu to "No," and the interface card setting is correct I still get double-spaced output. How can I correct this problem so it will print single-space output?

- A. Some Brother printers interpret the return character at the end of the printer code as a printer command, others do not. If you get double- or triple- spacing from your printer, re-enter the code for 10 characters per inch without the return character. You should now be able to print single-space output. If that workaround fails, remove the codes for 10 characters per inch and 6 lines per inch altogether.

Q. My Panasonic printer puts a zero at the beginning of every line. How can I eliminate the zeros from my output?

- A. The AppleWorks print driver uses codes for characters per inch that do not work well with some models of Panasonic printers. The solution is to use the following codes, taken from the "PRINTER CODES" database on the sample files disk:

10 cpi Escape P Control-A
12 cpi Escape P Control-@

Refer to pages A-9 through A-12 of the AppleWorks Reference manual for instructions on entering the codes.

Q. I defined a "Color IW" and used the new special codes area to set up commands for color output on my ImageWriter II. Then I added a "Foreign IW" which had special codes for foreign language output. When I went back to use the driver for color output, I discovered that my special codes for color had been replaced with special codes for those for foreign language. Am I limited to only one set of special codes?

- A. In AppleWorks 3.0, you can define up to six special printer control codes per printer. You would expect that each of the three possible printers would have unique sets of special codes, and they can—except that the labels for those codes remain the same for all printers. The codes themselves are unaffected. For example, special code #1 for the Color IW is different than Special Code #1 for the Foreign IW, even though both codes might be labeled "Print Spanish." This is an inherent limitation in the program.

Q. I used the 10 cpi code for my Star printer listed in the "PRINTER CODES" database supplied with Apple-

Works 3.0. When I print, "ES" appears at the beginning of every line of my document. Are the codes listed in the database incorrect?

- A. You're probably entering the code as it appears in the Multiple Record Layout. In that view, the columns are too narrow to display the entire code. If you entered part of the code, it probably won't work properly. To view the entire code, press Open Apple-Z for Single-Record Layout. You'll discover that the complete code for 10 cpi on a Star printer is as follows:

Escape B Control-A Escape W Control-@

You entered "Escape B Control-A ES," which would cause the "ES" to appear at the beginning of every line.

Q. I prepared a report in the Data Base module and specified that I needed three copies. The first copy printed out fine, but other two copies printed out with only the header and the first record of the report. How can I resolve this problem?

- A. There are a couple of alternatives. You can print the report to the Clipboard and then move the file from the Clipboard into the Word Processor module. You can then print the report from the Word Processor. You can also press Open Apple-C to copy the database records you want to print. Open a new spreadsheet document and press Apple-C again to copy the database records from the Clipboard to the Spreadsheet. The Word Processor and Spreadsheet modules will print multiple copies properly.

Q. I tried to use the FastCopy program included with AppleWorks 3.0 to copy AppleWorks. However, when I insert my original disk, the computer beeps and I get the message "This disk must be write-protected!" As far as I can tell, the disk is write-protected. What should I do now?

- A. FastCopy requires you to write-protect your source disks (the disk you're copying information from.) If you have problems copying your disk, try the following techniques:

- Use nonreflective opaque tape to cover the notch. Some disk drives (including later model Apple drives) use optical sensors to see if a write-protect notch is covered or not, and it will not recognize disks with transparent or shiny tape as being write-protected.
- Use thicker, sturdier tape. Some drives use a mechanical button that is not fully activated when thin tape is used.
- Make sure the tape wraps around both sides of the disk. If you only lay the tape sideways, across the surface of the disk, the detector mechanism may not work properly.
- Try a different copy utility, such as Copy II+, or the programs included on the ProDOS Users Disk that came with your computer.

Q. I like to use the option "Omit line when all entries on line are blank" in the Data Base to make my mailing labels more attractive. But when I print three-across labels, sometimes AppleWorks omits the line, and sometimes it doesn't. It works fine with one-across labels. How do I correct this problem?

- A. AppleWorks will only omit the line if all entries on the line are blank. If other labels in the same row have information on that line, the lines will not be omitted. To minimize the problem, sort your database by the categories which most often have blank entries. Those records will move to the top, and there will be a greater possibility of having a blank line in all three labels of a row. AppleWorks always omits empty lines when you print one-across labels.

Q. The manual says that I can now use parenthesis in calculated fields. However, when I try the example in

the manual, all I get is a series of pound signs ("#####") in my report. Is there something wrong with my disk?

A. Your disk is fine. The manual incorrectly states that AppleWorks 3.0 follows algebraic rules for evaluating calculated database fields, and allows parenthesis in those fields. Actually, calculated fields behave exactly as they did in AppleWorks 2.1. You should arrange the formula so that it does not use parenthesis.

Q. In my original copy of AppleWorks, Open Apple-Tab moved the cursor to the previous tab stop. Open Apple-Tab in AppleWorks 3.0 moves the cursor forward to the next tab stop. The quick reference card says Open Apple-Tab moves the cursor to the previous tab stop. Which is correct?

A. The quick-reference card is in error. In AppleWorks 3.0, when you press the Tab key (without holding down an Apple key), a formatting caret is inserted into your document, and the cursor as well as any text after the cursor moves to the next tab stop. Some users of earlier versions of AppleWorks may not want to use tabs this way, so Open Apple-Tab was changed to behave as regular Tab did in earlier versions of AppleWorks. Although you can no longer use Open Apple-Tab to move to the previous tab stop, Open Apple-Left Arrow provides a similar function: it moves the cursor to the previous word.

CLARIS is a trademark of CLARIS Corporation. AppleWorks is a registered trademark of Apple Computer, Inc. licensed to CLARIS Corporation. ProDOS is a registered trademark of Apple Computer Inc.

Permission is granted to distribute this file freely, so long as it remains intact and unedited.

Copyright (c) 1989, CLARIS Corporation.

APPLE IIGS

- * Apple Iigs 256K Computers
- * Two 5.25" Floppy Disk Drives
- * Apple Iigs Monochrome Monitor (optional Colour Monitor at extra cost)
- * Typically 6-18 months old in excellent condition complete with manuals, leads and cables
- * Three months Warranty inclusive
- * Price: £600 plus V.A.T. including carriage

Please contact:

ROGER D'ARCY COMPUTERS

Tel. Oxford (0865) 728787

Facs. 0865 726753

Clarity

Open-Apple is Tom Weishaar's monthly newsletter for knowledgeable Apple II users. It's thin but packed tight with Apple II lore, humor, letters, tips, advice, and solutions to your problems. Compared to other Apple II publications, *Open-Apple* has the highest new-idea-per-issue ratio, the clearest writing, the funniest cartoons, the longest index, the best warranty (all your money back if you're not satisfied), and it takes up the least shelf space.

Il cue #49

All of the new Beagle Bros Timeout series of AppleWorks enhancements are good. *UltraMacros* is incredible. But *Quickspell* is a work of true genius. What makes it so good is its user interface. After checking three dictionaries, it gives you a list of all words it couldn't find. You can select which words to ignore, which to fix, which to add to your custom dictionary, and which to look at in context. For more, see the February 1988 *Open-Apple* page 4.3.



From our fan mail:

"Lee Raesly directed questions and added his input to a panel of four Apple II stalwarts....A brief recounting of their answers may be of interest to many of you:

Q. What magazines are available?

A. *WAP Journal*, *A+*, *AppleWorks Journal*, *Byte*, *Call Apple*, *inCider*, *Open-Apple*, *Nibble*. (After *WAP Journal* *Open-Apple* was the unanimous favorite.)"

Washington Apple PI Journal
Washington D.C., January, 1988, page 10

COMPUTER DOWN !

- FAST TURNROUND - NORMALLY 2 DAYS
- 3 MONTH WARRANTY
- COMPETITIVE PRICES ON ALL SERVICES
- TRADE ENQUIRIES WELCOME
- Most makes of COMPUTER, MONITOR, PRINTER

EXAMPLES ALL INCLUSIVE PRICES

APPLE II + OR //e Power Supply	£32
APPLE II + OR //e Motherboard	£32
Apple Interface Card (most makes)	£25
Disk Drive - cleaned & aligned	£25

Please ring for other repair prices or send equipment for free estimate

Quantity Discounts available

SUPERCARGE YOUR MACINTOSH

AVAILABLE NOW !

1MB SIMM'S - EASY TO INSTALL

Take your Mac+/SE to 2.5MB or even 4MB

Take your Mac II to 5MB or even 8MB

WE WILL NOT BE BEATEN ON PRICE

TRADE ENQUIRIES WELCOME

NOW IN STOCK

MacPlus Connectors, Serial & AppleTalk
Price depends on quantity

COMTEC

UNIT G, SUNDERLAND HOUSE
SUNDERLAND STREET
MACCLESFIELD, CHESHIRE. SK11 6JF
TEL (0625) 34691

Open-Apple

POB 7651, Overland Park, KS 66207

Try two months free!

Offer good one time only. Try *Open-Apple* at our expense. Cut out or photocopy this coupon and mail it to us for a free two-month trial subscription.

Ad code M282

Free airmail worldwide.

Typing Tutor IV

A Review of the Ilgs Typing Tutor IV with Letter Invaders by Terry Morris

Introduction

"If you can't type, you can't compute". So says the blurb on the back of the packaging of Typing Tutor IV. This may not be quite true but I had decided that I had had enough of the neck-ache caused by swinging my head from keyboard to screen to keyboard during a long typing session, and so I thought that learning to touch type would be a great improvement. So I bought Typing Tutor IV. The question is - does it help?

The Program

The program requires a 512k Apple IIgs. A RGB monitor is recommended.

The single 3.5" Typing Tutor IV disk comes with an 43 page instruction book. This is perfectly adequate though it must be said that the program is not the most difficult to understand, and does not challenge the instruction book writer.

The first instruction to be followed is to copy the original disk to provide a working copy (the disk is not copy protected). A nice label is even provided. As the program writes to the disk during use this normally desirable action is even more necessary. As the program runs under Prodos 16 version 1.3 with the Finder and takes 3 minutes to load before each use there is another good reason to copy it. I copied it to a disk and ran it with Prosel under GS/OS and cut the load time to just over a minute, though more memory is required. No doubt a hard disk would be even quicker.

The First Lesson

Once loaded you are asked to give your name and choose an experience level - Beginner, Two-finger Typist or Touch-Typist. You are then invited to choose a target speed, anything from 10-19 words a minute to 90-99, and a target practice time from 1-2 hours per week to 20 or more. All these selections can be changed at any time.

The program then selects the first lesson and away you go!

For a Beginner or a Two-finger Typist the program shows the "Home Keys" - these are the keys "asdfjkl;" - so called because your fingers remain just above these keys and all others

are reached from them. Not all the keys are thrown at you all at once. You start with "a", "s", "d", and "f" and do little exercises until you get faster.

These exercises appear on the high-resolution graphics screen and you type below them. A cursor shows the position and you simply type the letter appearing above the cursor. If you are correct then nothing happens and you type the next letter. If you make an error then the computer bleeps and a marker shows where the error occurred. You are recommended to backspace or to use the delete key to correct the mistake.

Once you have achieved a certain level of speed (depending on what you chose as your target) with the practice letters the computer gives you another letter as part of the lesson and you continue.

If you are already a Touch Typist then you are asked to do a little test which the program uses to base the first lesson on, and you are given lessons on all the keys from the start. There are 64 keys using the definition adopted by the program (which means that all characters count as keys, except capital letters which are included with lower case). Exercises are not given on any of the keys on the bottom row except the space bar, nor on the "special" keys - Control, Tab, Esc. Lessons are given on the number pad, however. All fingering information refers to the standard "qwerty" keyboard layout. No information is given on the other layouts selectable from the Control Panel.

Although I was a two-finger typist when I got the program I did the opening test (using two fingers) and found that I could achieve 33 WPM using the slightly flattering figures from the program. I also did the test in handwriting and discovered that I could write fairly illegibly at 30 WPM. It seemed to me that exceeding these

figures would be a good later target. I say "later" because there is an awkward time while you are still learning only some of the keys when life is more difficult than before you started - it is better to have some proficiency over all the keyboard than to be very fast over some of it - so I set my initial target to the lowest figure.

Kinds of Practice

There are various kinds of practice available. There is the Practice Lesson, described above, The Practice Test, Disk Tests, Fingering exercises and Letter Invaders.

The Practice Test is a longer version of the Practice Lesson and is carried out in exactly the same way, using only those keys which have been practised thus far. There is a version of this which will give practice on all the keys if requested.

The Disk Test is a longer version of the Practice Lesson and is (surprise!) kept on the disk as a separate file. It is possible to make your own disk tests from word processor text files. I thought this was rather a good idea since everyone has a different vocabulary - and special interest fields have their own jargon - and you can practise easily those things which you might actually want to type later.

Fingering exercises allow extra practice on individual keys and show the correct fingering for any character you choose.

Letter Invaders is a game where letter and word bombs rain from the sky and destroy the ground unless you

type them at the keyboard first. Any error during a word means that the entire word has to be re-typed. The bombs fall ever faster and when you run out of ground the game is over. The game can cope with one or two players and will give only the practice keys or all the keys according to taste. A high score record is kept. I had thought that this would be a gimmick but it is not. It has to be admitted that learning to type is a boring

affair but the game adds an extra dimension to competitive souls and keeps motivation higher than it otherwise would be.

The program is American and all dates are, rather annoyingly I find, in the American format however your Control Panel is set. Spellings, too, are American though this is not very important. One slight drawback is that there are plenty of exercises using the "\$" symbol and not many using the "£".



Feedback

For all parts of the program except for Letter Invaders detailed feedback is available. The most important part of the feedback is actually automatic. Learning to type quickly is not just a matter of knowing where all the keys are without looking, but becoming familiar with the groups of letters commonly found in everyday English. You are given these groups in the lessons and tests (The sentences given rarely make sense, but they do contain the right parts of speech and resemble normal sentences very closely. Since you do not absorb the message of what you type this is perfectly acceptable). The program measures how well you type the various tests and makes you repeat most often the ones where you have difficulty. As the instructions point out, finding out where you have difficulties any other way is very complicated indeed, but you must know it to make the fastest progress.

There are charts and tables showing percentage accuracy and speed in words per minute split by keyboard character. An overall speed rating is available for all your typing and a table shows this split by letter, by number, and by "symbol" i.e. the remaining characters. The charts and tables can be viewed at any time and the tables turn up at the end of each lesson or test. When the program is first run you are given a summary of

progress to date (including whether you are sticking to your stated practice time!) and after about a week a date by when you may achieve your target speed on the whole keyboard. I don't know how this is calculated but at one time it was confidently asserted that I would achieve 10 WPM some weeks after I would achieve 30 WPM!

All this feedback is very important indeed and very useful in directing your effort where it is most needed. It is also one of the key benefits of the program, since it simplifies measurement of your progress greatly.

Other Features

In addition to the various file managing options there is an instructor mode with Typing Tutor IV. This enables an instructor to set up tests and monitor the progress of up to eight students on one disk. This option is password protected and the tests can be encrypted for security. It should be noted that the license agreement permits only one copy of the original disk to run at once.

Conclusion

Learning to type is boring and frustrating - and useful. Typing Tutor IV simplifies and quickens this process in a number of ways very difficult to emulate without a computer and in my view is a very worthwhile program. The selection and progression of the lessons and tests have been very well

info

Product : Typing Tutor IV
Publisher : Kriya Systems Inc.
Available from :

MGA Softcat
41 Cinque Port Street
RYE
E Sussex TN31 7AD
(0797) 226601

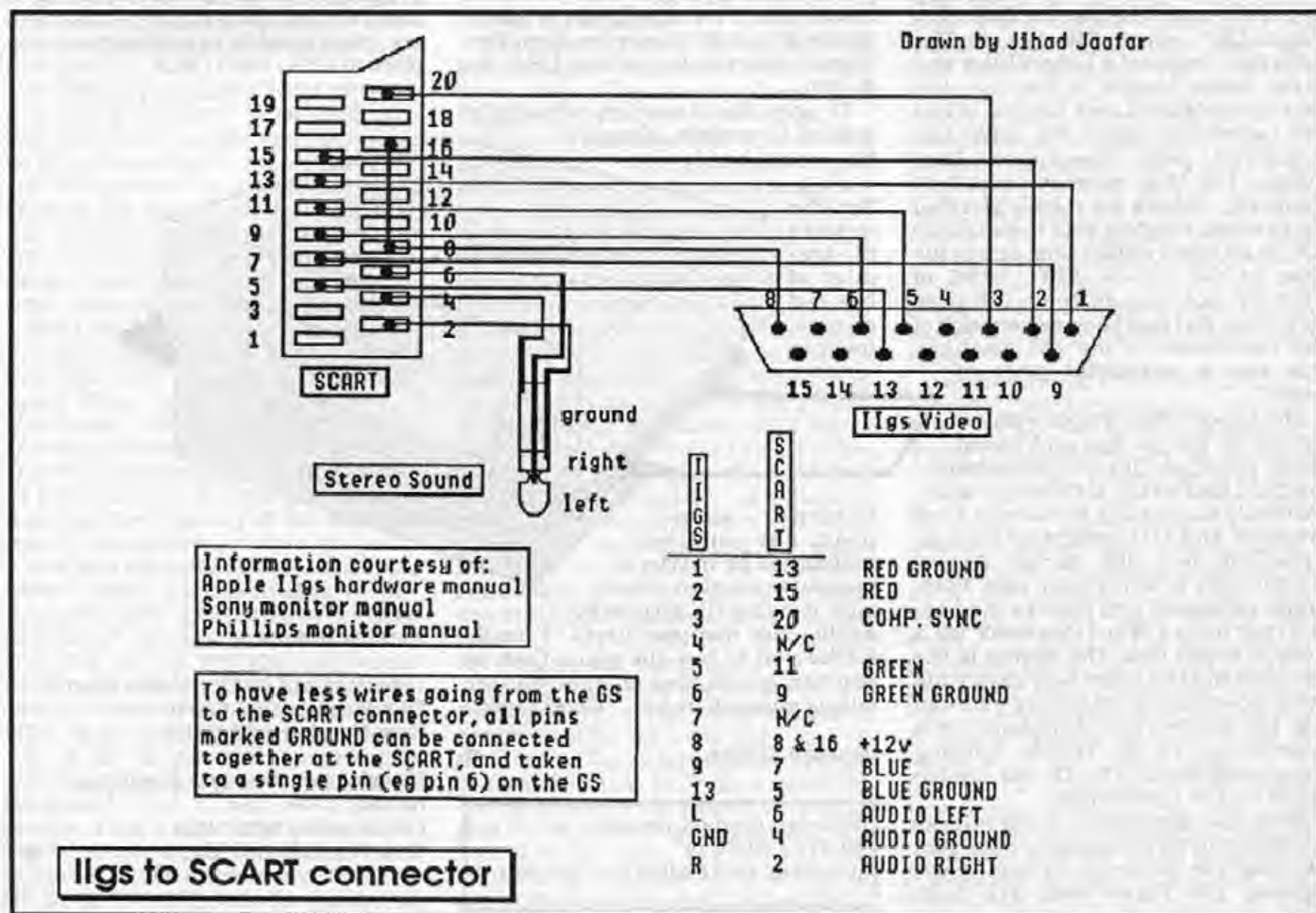
Price : £39.95 inc VAT P&P
£49.95 (Macintosh)

Value : ★★★★★
Performance : ★★★★★
Documentation : ★★★★★

thought through. This review was typed at about 45 WPM without a glance at the keyboard and no neck-ache. Versions of the program are available for other Apple computers, though I have not had the opportunity to try them.

Finally, Typing Tutor IV has unexpected vocabulary-enhancing capabilities - unless you are already familiar with such words as fizzle, zori, mantilla, xanthic and roquelaure!

Terry Morris



A Cheap(ish) LaserWriter

Jeremy Quinn does a conversion to full LaserWriter specification from his common or garden Laser

Several months ago, while reading an American edition of Computer Shopper, I came across an article in Don Lancaster's regular Postscript column about the possibility of converting Hewlett Packard LaserJet printers into LaserWriters.

This idea attracted my attention because I own a simple LaserPrinter very similar to the LaserJet, a Canon LBP-8-A1. The article said that basically there are two types of printers around, those that contain a Canon CX engine and those that contain a Canon SX engine. The SX engine is the latest one that fits inside the newer printers like LaserWriter 2's, the SX is not relevant to this article.

The CX engine however goes in the LaserWriter, the LaserWriter Plus, and a multitude of other printers (generally on IBMs) like the LaserJet, Canon LBP, certain Olivettis etc. The difference between a LaserWriter and these lesser beasts is the circuitry that controls the Laser Engine. While the LaserWriter (and the Plus) has Postscript page description Language, 1.5 Meg memory, umpteen Fonts etc., others are merely glorified daisy wheel printers with their Diablo 630 or ISO instruction sets, and in the case of my Canon LBP, 128K of memory, not enough to do full page Graphics. As I had become very sick of the limitations of my old machine, this was a wonderful piece of news.

The LaserWriter works with all Apples ([I,][+,][e,][gs and Macs). While the Apple][gs and Macs have special LaserWriter Drivers for automatically outputting Postscript from graphics and DTP programs over an AppleTalk Net, the earlier Apples require you to send your own Postscript programs and data to the LaserWriter from a Word Processor via a normal Serial link. The former is the simplest but the latter is probably the most powerful. Additionally you can use the ImageWriter Emulator on a LaserWriter to do simple Printing from AppleWorks etc. Or use Diablo Mode on the LaserWriter.

So to the conversion. I will not explain how to do the actual conversion because the information was copyrighted. The Plans were \$10 from

Custom Technology in the USA. They were very good, they covered converting a LaserJet, but I found the details were the same for my Canon LBP.

The conversion itself is surprisingly simple. It took me two days, but I was working extremely slowly and carefully. Basically you remove the lid, take out the old I/O Controller board from inside the lid. Fitting the new LaserWriter I/O controller Board in its place required a bit of metalwork to make new supports and exits for cables.

Making the new input cable harness and display panel were a breeze, requiring a few parts from RS or Tandy. In fact the most difficult part was finding an Apple I/O Controller board. I wasted a lot of time and phone calls trying to find a Second Hand one. I eventually got a LaserWriter Plus I/O Controller from Pre-Owned Electronics in the USA, for \$1200.

To get the LaserJet or similar printer to convert, should be reasonably

e a s y .
Try the
dealers
of s e c o n d
h a n d
e q u i p m e n t i n

Personal Computer or similar magazines or maybe a computer auction. Make sure it has a CX engine by asking the manufacturers. I would advise you to buy the plans first, so you can get an idea of what you are letting yourself in for. Good Luck!

Jeremy Quinn

You can contact me on:
(01)737 6831 or
(071)737 6831 after 6th May 90

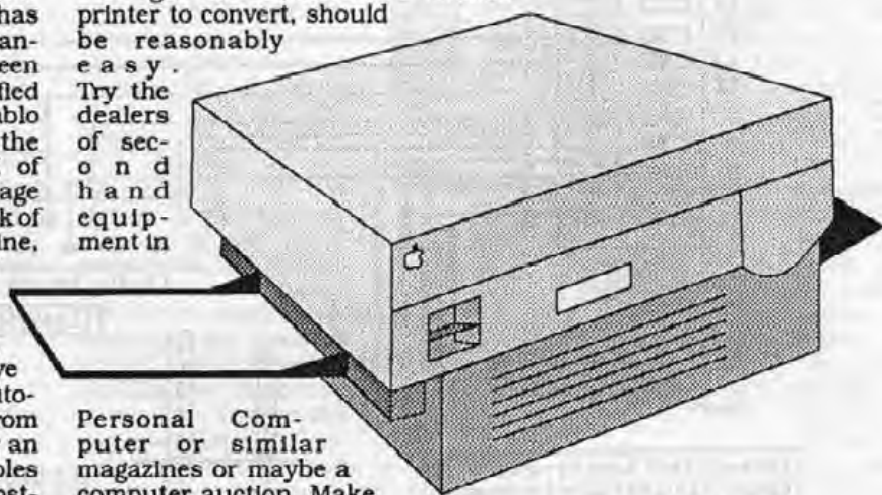
Suppliers:-

Electromail Ltd.,
PO Box 33,
Corby
Northants
NN17 9EL
(0536)204 555
Supply Parts from the RS catalogue.
(Visa/MC/Cheque)

Greg Saulsbury
Custom Technology
192. Lakeshore,
Texarkana,
TX 75501
USA
(0101 214)838 0243 (Home)
Supplies the conversion plans.
(Cash)

Pre-Owned Electronics
30. Clematis Ave.,
Waltham,
MA. 02154
USA
(0101 617)891 6851
Supply Used, Recon and New parts
for all Apple Computers. (Visa/MC)

Don Lancaster
Synergetics,
PO Box 809,
Thatcher,
AZ 85552
USA
(0101 602)428 4073
Supplies information, Postscript
programs, templates etc. for using
LaserWriters from Apple][computers.
High Quality Info. (Only supplies to USA) (Visa/MC)



Part Numbers :-

LaserWriter I/O Controller Board
Old Number 661 0270
New Number 661 0436

LaserWriter Plus I/O Controller
Board
Old Number 661 0324
New Number 661 0437

Using the Finder as a Launcher

Gary R Utter looks at the potential of the Finder to launch programs

Caveats

1. My original intention with this post was to outline as simply as possible the manner in which I use Icons to turn the Finder into a full fledged program launcher. It turned out that I could not DO it simply. So what you are getting here is several different sections of related information and opinions. I am sure that I will manage to leave out two or three things that your really WANTED to know, so don't hesitate to ask, either by E mail or on the board. Be advised that I am NOT an expert. What I am is a fairly knowledgeable user. But either no one else is doing what I am doing, or they are not talking about it in print or on the electronic services. I have made some mention of the stuff I do, and people have asked for more information. Since no expert has presented himself, it's up to me to take care of it, so here goes.....

2. Unless you have a Hard Drive or a pretty good sized ROM disk, the information presented here is going to be of only academic interest to you.

3. Attached to the end of this file is another file called Icon Tips that was put together by Rob Moore and Jim Merrit of Apple. They said it better than I could, so I used their words. (with Robs permission). Uploaded as a SEPERATE file, so as to make the download optional. Is a large set of Icon files, set up as I am currently using them, together with a set of directories and sample text files to illustrate the way I have set things up. The Icons are pretty good (and are not all my creations, by ANY means) and make up the majority of the file, so if you are interested in Icons, go get it.

4. If you are not confident that you have a good understanding of pathnames, you are probably in over your head on this stuff. Do a little studying up on ProDOS and come back to this later. (You are going to need to know ProDOS anyway, there WILL be an exam.)

5. A lot of you will immediately assume, when I refer to a "text based launcher" that I am referring to ProSel. This is not exactly the case. ProSel is indeed, the MAIN text based launcher in the Apple world, but it is far from the only one. EasyDrive is

completely text based, has an interface as unique as ProSels, contains some VERY powerful utilities of its own, and is by FAR the easiest to use launcher/utility program on the market. JumpStart uses text on a graphic screen, follows the Human Interface guidelines, and has some pretty neat features all of its own. There are several other launchers available that I have not had the opportunity to look into. Utili-worksGS looks very attractive, for one. A few months back, by circumstance, and at the request of several MAUGers, I did a (very superficial) comparison of these three programs and Finder. If you are interested in reading it, it is in Lib4. Search on the keyword "Compare".

A Plea for Respect

The Finder gets a lot of bad raps among experienced users, they call it slow, they call it clumsy, they call it buggy, they call it a lot of things.

None of these are true. It is slow by comparison with a text based launcher such as ProSel, simply because it IS a graphics based launcher. It takes TIME to redraw those pretty color screens with the little pictures. But it takes considerably LESS time now that GS/OS 5.0 is out. And with a Transwarp GS it really DOES fly. It is clumsy if you don't know how to use it, but it takes VERY little practice to get comfortable with it. It has a FEW bugs. It had a lot more a year and a half ago, but what didn't? A LOT of the complaints about the Finder being buggy are actually complaints against programs that were RUN from the Finder, and that use the same interface. If you run, for instance, Paintworks Gold, and it crashes halfway through the masterpiece you are creating, you should not be blaming the Finder, but many do....

Finder was, and continues to be, developed by some really excellent programmers, who worked hard to get it right. They had a specific design goal, and I think they have achieved that goal very well. I can't state that goal in the same way they would, but here is what I see....

Finder is intended to be EASY to use. It is a deceptively simple program

that does a lot of things automatically and easily. It is meant to serve the needs of first time users while still being a capable program for experienced "power users". It adheres to Apples "Human Interface" guidelines, which are pretty much in standard use in all GS productivity programs these days. The intent of this is that you do not have to learn new ways of doing things, and different meanings for the same action from program to program, OR within the Launching Application.Finder.

Think for a moment about what happens when you open a "window" in Finder. It gives you a visual representation of what is in the volume you just opened. This is actually a PICTURE of the volume directory. In short, a directory listing. A simple double click of the mouse on a directory icon is equivalent to typing in a catalog command complete with prefixes. When you "drag" a file from directory to directory, it gives you a visual representation again, of a file being written to one place and deleted from another, and at the end you SEE that your file is where you want it, because the cataloging and visual representation is a continual process. Finder accomplishes this actual PROCESS, of reading, writing and deleting, just as quickly as any text based launcher, and if it SEEMS to take longer, it is because the user has LESS to do, thus having more time to wait for it to happen. Think about this, a few mouse movements and clicks accomplishes the deed. In a text based launcher you must first enter a command to activate the file copying utility, then type in the appropriate pathnames for source and destination directories, (be sure you don't type in ONE wrong character while you are doing this, ok?) then choose the file(s) you want transferred, and execute. THEN, if you want to be SURE that it has been transferred, you have to issue a command to catalog the destination directory.

I won't say that Finder is SUPERIOR to a text based system in this regard, but this sort of activity makes it a VERY viable alternative, in my mind. What I WILL say is that Finder is doing a lot MORE than a text based launcher at any given moment. In addition to redrawing that graphic screen, it is presenting considerably more information. And just about ANYTHING you want to do with Finder, in terms of file management activities, launching programs etc is done from ONE place, the Desktop, with no need to go to a different menu, or into a specific set of utilities. So while you may characterize it as SLOW, that IS a relative and subjective characterization. It is basically a matter of user preference. This is especially true for those of you who started out on Apple //e's and //c's. Text is what you were used to and

comfortable with, and if that is your preference, by all means, go with it. But PLEASE, stop badmouthing the Finder, chances are, most of what you do on a day to day basis could be done in just about the same time with Finder as with whatever you are using.

Fine tuning the Finder

Before we get to the discussion of using Icons, lets talk about getting the Finder to work a little faster. First of all, you should go into the System directory of your boot volume, and inside the Drivers directory, locate the Appledisk 5.25 driver. After highlighting it, draw down the "special" menu from the menu bar and select "Icon Info", you will be presented with an information window which will include a box marked "inactive". If you click on that box, an X will appear in it, and the next time you boot the system your 5.25 disk drive will be inactive. NOTE: this "inactive" status ONLY applies to the GS/OS (ProDOS 16) environment. You can use the drive freely while in any ProDOS 8 application, and copy files to/from it using Copy 2+ or some similar utility. Additionally, you can boot a disk in the drive any time from the GS/OS environment by use of a "Boot6" utility. There are several of these around, and I cannot give you a specific location to find one, except to look in the libraries. Of course, if you have ProSel, a utility to do this is included in both ProSel 8 and 16. JumpStart and EasyDrive also feature the ability to do this. The reason for deactivating the driver is that GS/OS will poll the drive at every opportunity, and take a long and noisy time doing it, and you really don't have THAT much use for the drive in P16. (And if you do, just disregard this.)

The second thing you should do is take a look at what Desk Accessories you are loading on boot. The fewer the better, Desk Accessories not only add quite a bit to the boot time, but they also consume a good deal of free RAM. There is a nice utility called InstallDA that will let you load any DA you have on hand, anytime you are in the Desktop (it won't work from within an application). I recommend putting DAs in a subdirectory, thus keeping them available when you need them without having to actually LOAD them time after time. (There are also _DAs_ that will load DAs, but I have not found one yet that will run on my system under 5.0 without causing conflicts with one or more applications I use regularly.)

The third thing you should do is to pay attention to what is in your windows, and how the windows themselves are laid out. You should go to the "special" menu again, and under "preferences" chose "save finder information to disk" and "hide invisible files". This will allow Finder to save the information about the placement

of icons within the windows, and the shape, size, position and "view by" status of all the windows. (This will also leave lots of little files called Finder.Data all over the place. One individual has referred to them as "finder turds". They take up only 1 block each, you can spare the space.) In any given window, files that you don't have any particular need to look at should be placed out of sight below the bottom or off the side of the window. The window itself should be only as large as needed to see what you WANT to see. NOTE: A SINGLE click in the double box in the upper right corner of a window will expand the window to full screen, you can use the scroll bars to move around within the window, and when you are done, ANOTHER SINGLE click in that same box will restore the window to its original size, placement and viewing aspect. If you have a LARGE directory, full of files that you NEED to be able to look at frequently, the best thing to do is to make the window tall and thin, and "view" the files in the directory by Name, (or Date, or Type, whichever best suits your purposes). You can easily scroll this window looking for what you want.

The fourth thing you need to do is to pay attention to what you have on the Desktop, including open windows. Every time the screen needs to be redrawn, the directory listing for every open window has to be checked, even if it is behind the active window, and various other files have to be checked for every Icon that is on the Desktop. Don't leave windows open unless you are working in them, don't leave Icons out on the Desktop just because they are pretty, just leave out the ones you use OFTEN.

The last thing you need to do is to go to the Control Panel and set your mouse speed to FAST. Believe me, it ain't all THAT fast, whiplash is definitely out of the question, but you WILL get around the screen a lot faster.

How the Finder uses Icons.

NOW, we start to get to the meat of the matter. What follows is NOT a technical discussion, nor is it necessarily technically accurate. Things work the way I am going to explain, but it may not be QUITE for the reasons I state. I am going to try to keep this general, so as to minimize the exposure of my ignorance. This information is not new, all I did was notice a couple of implications inherent in the system.

In addition to the graphic information contained in an Icon file (the picture that the Finder paints on the Desktop) there are three fields of data, referred to as ATTRIBUTES that we can modify with an Icon Editor. Those fields are FILETYPE, FILENAME and APPLICATION PATHNAME.

I'm sure you have seen the message "unable to find an application for this

document". What this refers to is the APPLICATION PATHNAME. Every Icon has an APPLICATION PATHNAME (of course, in many cases that name is blank). When you double click on an Icon, Finder interprets that as a command to OPEN the file that is represented by the Icon. If the file is a directory, it will just OPEN it, but if it is an actual FILE, Finder will find (thus the name Finder) the application that created that file, launch the application, and pass the name of the file TO the application with a command to open the file. Now, unlike the MAC Finder, the GS Finder does not have any resource to tell it what application created that particular file. It has to look at the APPLICATION PATHNAME information in the Icon file for that particular document. This information is NOT automatically available, but must be manually entered by SOMEONE. Many of the Icons you see with commercial programs have a pathname attached. The pathname attached to the Icon for an Appleworks WP file, for instance, is /Appleworks/ Applwrks.System. When you try to open an Appleworks file on the desktop, Finder looks at the Icon file, and follows the application pathname looking for the application Applwrks.System. This will work just fine if you have an Appleworks disk on line, but if you don't you get that darned message. Think about this, we will come back to it in a few minutes.

Another field of information in an Icon file is the FILETYPE. What this refers to is what TYPE of file Finder is going to display the Icon for. You can set the File to almost any valid Type. The Icon editors I am familiar with present you with a scrolling list of FileTypes when you are in the "Edit Attributes" mode. If you design an Icon and set the FileType to BIN, or binary, and do not enter a name, or enter an asterisk in the name field, that Icon will be displayed for ANY binary file. (This is not QUITE true, see Icon Tips, at the end of this file for better information.)

The last field we are concerned with is NAME. If you design the aforementioned Icon for BIN files, but only want it to show for a SPECIFIC file, you would enter the NAME of that file in the NAME field. The name does not have to bear ANY relationship to the actual program to be launched or the file it is representing, it can be whatever makes YOU happy, just like setting names in a ProSel menu. NOTE: All this information is pretty general, if you are going to get into editing Icons, you need an Icon Editor, and you should read the docs thoroughly (I mean it, thoroughly).

Okay, now lets look at the IMPLICATIONS of the last three paragraphs. You can design a custom Icon, or take someone elses design. (Icon freaks post em all the time, free for the

taking.) Using your Icon Editor you can alter the information contained in three critical fields. The effect of this is that YOU choose what TYPE of file will display a certain picture on the Desktop, further, you can NAME specific files of that type, and ONLY files of that NAME and TYPE will display the chosen Icon. When you double click on that displayed Icon, of the name and type you have selected, Finder will look at the APPLICATION PATHNAME you have entered, and follow that pathname to LAUNCH THE APPLICATION YOU HAVE TOLD IT YOU WANT LAUNCHED FROM THIS ICON.

In other words, in a most common example, you can take an Icon representing the old Apple green box version of Appleworks, set it to be displayed for a TEXT file named Appleworks, and with a pathname of (in my case) /Hard2/Appleworks/Ultra.System, and when you double click on that TEXT file, it will launch Appleworks. The actual System file remains in its proper directory, you do not need to drag it to the Desktop, or pay any attention to it whatsoever. The work is all done with a teeny little text file and the inherent capabilities of Finder.

Implication of the Implications

One of the biggest and most valid criticisms of Finder is that you have to go digging through directories and subdirectories to run a program (and in the process, wait through a lot of window opening and closing before you are into your application), or, alternatively, you have to drag all your application files out onto the Desktop in order to launch them with any ease. This can get pretty confusing and makes it pretty easy to make some seriously aggravating mistakes, too many of them to be worth detailing. Going back to the previous section, however, we can now see that it is not at all necessary. We can, instead, set up a "Launch.Icons" file that will allow us to access any launchable application from, essentially, a TEXT file. This text file, since it has no connection whatsoever with the actual application files, can be placed wherever we want to put it, with no thought to the pathname, what other files are in the same directory (or aren't in the same directory) or much of anything else except logical organization. The TEXT file, incidentally, needs to be no bigger than 1k. In my case, I went into Appleworks, typed three lines of X's, and "printed" the file to a disk. Now I just Duplicate the file, giving the name of whatever Launch Icon I want to set up, and I can do this easily and quickly. NOTE: Not ALL programs can be launched from a TEXT type file. Remember that Finder is telling the application to OPEN that file. If you run into a problem (i.e. crash) when trying to run your favorite program, consider what

type of file it would LIKE to open, and try setting your Icon file to correspond to that. To date, I have discovered only TWO programs that do not like TEXT files, DlcEd, which works just fine with a BIN file, and Iconed, which will only try to open a file of the type Finder.Icon. ALSO- Basic files cannot be launched in this manner, I'll explain how to deal with them later.

How to set up your files to use Finder as a Launcher

First of all, I have one specific Icon file, named Launch.Icons, where I keep ALL of these puppies. The rest of my Icon files are fairly normal. (They used to be a tad unorthodox until I read Icon Tips). Using this system DOES take up some space on the boot volume. My ICONS directory is about 150K. If you are working with a Hard Drive, this is trivial. If you are working with a ROM disk...well, you can figure it out.

Secondly, you will need to organize the TEXT files that show the Launch Icons. The way I did it (and you are, or course, free to do it in your own way) was to set up a few directories which contain nothing but Launch Icons. I have one named WORK, which contains Launch Icons for all my productivity programs, one named PLAY which contains all my icons for games, and one named PHONES which has launchers for all my telecommunications sessions. I keep these directories in the root directory of Hard, with the window set up so that they are right at the top. (I click on Hard, the window opens, I click on WORK, the window opens, I click on Paintworks Gold, and I am off and running.) (Remember what I said earlier about keeping windows as small as possible, and displaying only what you NEED to display within them.) I dragged my most commonly used files to the Desktop, and arrayed them neatly along the bottom of the screen, out of the way and easy to get at.

Thirdly, you will need to pay close attention to the layout of your directories and subdirectories. Of course, you need to do this with ProSel or EasyDrive or JumpStart also, but, as always, it is important to limit the length of your pathnames as much as is feasible.

The MOST important part of this whole process is the proper setup of your Launch.Icons icon file, but that is fairly easy.

Now, I said I would come back to how to launch Basic files. Basic files are NOT executable in and of themselves. Instead, you need to run Basic.System. The correct application pathnam for a Basic file will always be */Basic.Launcher, where */ indicates the Root Directory of the Boot Volume. (If you keep Basic.System and Basic.Launcher someplace else, you will have to adjust this.) Basic.Launcher starts up

Basic.System, and passes on the name of the actual Basic file that is to be run. Since the prefix cannot be set to the specific file you want to run, what you must do with Basic programs is treat them in the old way. They have to be run from the directory they are in, or dragged to the desktop. You can still display the Icon of your choice, however, and you can also name the file pretty much whatever you like, instead of "Startup".

Conclusion

That pretty much sums it up. A whole lot of words to express a pretty simple concept. If you have any questions, like I said, don't hesitate to ask. On C!\$ I'm 72401,3251, on GENie I'm G.Utter. Look for the second file with all the Icons and the subdirectory setup to have the same name as this file, with a 2 appended.

Acknowledgements and Recommendations

Dave Lyons, author of DlcEd was of tremendous help to me when I was first learning this stuff, and I HIGHLY recommend his Icon Editor, DlcEd. It is available in the libraries here. I have tried several Icon Editors, and DlcEd is the best. It simply will NOT trash your Icon files. (It will allow YOU to trash them, but that is another matter.) I do not mean to imply that other programs WILL trash your files, but I have had SOME problems with everything else I tried, so if YOU run into trouble, get DlcEd. Dave's support of this program is excellent.

Rob Moore has also been helpful. I had some specific problems and questions which I took to him, and the result was the Icon Tips file which follows. Thanks guys!

Gary R. Utter

ICON TIPS

Some notes on Icons and the GS Finder - Courtesy of Rob Moore and Jim Merritt.

1. Avoiding the dreaded "Disappearing Trashcan syndrome"

a) Do not alter the GS Finder.Icons file in any way. There are better ways to accomplish the same functions. These will be explained later.

b) Do not have any Icons assigned to filenames with wildcards that also do not have the filetype specified. In fact, we highly recommend specifying a filetype for all Icons you add to the Icons folder. It's a rare case when you can specify a name and not also know the filetype. The subtype may or may not be specified.

c) Above all, do not attempt to replace the "generic document" Icon in Finder.Icons, that is used when no other Icon matches the file name or filetype. This Icon serves a special purpose in the Finder icon structure and must not be altered or move

2. How to properly modify the Finder.Icons. (Wait a minute - We said you couldn't do this!)

a) Make a copy of the Finder.Icons file and delete all of the icons you don't want to change. You Must delete the Generic Document icon. It's last in the file. The Finder gets really upset if there is more than one of these.

b) Edit the icons you want to change and save the file with a new name of your choice. Your edited icons will be used in place of the corresponding icons in Finder.Icons.

c) You can change the Trashcan's image but you can't increase its size much. Don't try to change any of its other characteristics.

3. Fun with Folders. Want customized folder icons? It's easy.

a) Open Finder.Icons and copy the Directory folder icon - labeled DIR.

b) Open a new or existing icon file of your own and save the copied folder icon there. Close the Finder.Icons file.

c) Edit the icon to add a picture or whatever and change the filename for the icon to the name of the folder you want this icon to represent.

d) Now you have a customized folder icon. To do more, use copy and paste to duplicate the icon in your file and edit the copies.

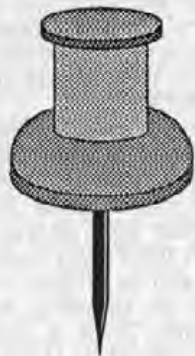
4. Some general info:

Other than Finder.Icons, icon files are loaded by the Finder in directory order. If there are multiple icons that could match a given file or filetype, the last one loaded will be used. This happens because the Finder loads the icons files as they're found in the directory and then searches the list of icons backwards from last to first looking for the first match it can find.

If none of your custom icons match a given file, the Finder will always find a match of some sort in Finder.Icons, with the Generic Document icon being the match of last resort.

So if the icon you see is not the icon you expected, you probably have more than one icon that matches your file and the one shown is farther down in the directory than the one you wanted. You can rearrange the directory or better still, just delete the duplicate icons you don't want. It's smart to delete any icons that you're not using. They're all loaded by the Finder and each uses a certain amount of memory, whether it's displayed or not. Have fun.

Rob Moore



Some thoughts on the Apple II found on Compuserve

Never underestimate the power of a good idea

"A little over five years ago, Macintosh changed the computer industry forever. It was the world's friendliest, most usable, most understandable computer. The first **personal** personal computer."

□ Over 12 years ago the Apple II began the personal computing industry. It was and is popular because it is friendly, usable and understandable. And, in its unpretentious tradition, is referred to in proper English with an article: "the Apple II", not "Macintosh".

"...Apple's remarkable success story — from the garage to the Fortune 200... Without the first Macintosh software and hardware pioneers, the world's greatest computing platform would have been nothing more than an accumulation of silicon and sweat."

□ The first Mac pioneers weren't in that garage! How conveniently several years and an entire product line; an entire **culture**, are forgotten!

"Today, Macintosh can claim more than 3,000 software applications."

□ From Apple's own figures, the Apple II has over 12,000 titles.

"...Macintosh...Apple's proven development platform..."

□ The Apple II:

Profitable from day one. (Unlike the Mac which only just recently began to actually make money, instead of surviving solely on Apple II profits.)

□ Continual survivor of cries of doom and efforts to kill it from all fronts.

□ Generally agreed to be the easiest computer to program.

□ Certainly the most open and expandable computer available.

□ (The Mac is finally beginning to learn — the Mac II)

"...developing for Apple is about revolutionary ideas and evolutionary ideas — ideas that build on the five-year history and success of Macintosh."

□ Developing for Apple apparently has nothing to do with the Apple II.

"...we believe all developers have an impact on the continued success of Macintosh."

□ True enough. Mac developers have already started wondering when

they'll be abandoned in the same way Apple II developers have been.

"Introducing the Apple Developer Group. ...people who'll provide you with the technical and marketing information you need, and put you in touch with the technical minds at Apple who can give you the inside scoop on developing products for Macintosh."

□ Apple II developers need not apply.

"At Apple, we understand that although the thought of getting your idea off the ground might be exciting, the task of getting started and getting up to speed probably isn't. Especially if you're coming from another development platform. That's precisely why we created Apple Developer University."

□ Especially if you're an Apple II developer — Apple Developer University remains true to their charter — to serve Macintosh developers.

"There's an equally impressive line of technical resources and tools for the Apple II, for those interested in developing for that platform."

□ The only mention of the Apple II in the entire document is an afterthought.

□ It's not equally impressive. The resources available to Mac developers are far more numerous and far more powerful.

"AppleLink. One of the best things about being an Apple Associate or Apple Partner..."

□ If you have access to a Macintosh. The Apple II version of the software necessary to access AppleLink is an embarrassment. It is entirely useless.

□ A recent announcement for AppleLink 5.0 mentions all the new features that are, of course, unavailable to Apple II users, since the Apple II AppleLink software hasn't been revised for, literally, years. But if you have a Mac...

□ The best source of technical support for an Apple II user is on other electronic networks such as CompuServe, where concerned Apple employees offer support on their own time.

"We realize that ... developing the product is only half the battle. You've also got to market it."

□ A lesson that Apple desperately needs to learn.

"The platforms are there... The installed base — more than two million Macintosh computers — is there."

□ Over five million Apple II computers. Two and one half times as many Macs. That's a large installed base to forget between a few sentences.

"Have you got any good ideas?"

Applied Ingenuity Internal Drive



Jihad Jaafar fits an internal hard drive to his IIGs and reports how he did it

Before I start about the drive. Why do you want an internal hard drive and what does it offer that an external hard drive offers?

First it goes faster than an external drive because it has 16 bus lines so more data can go faster from the drive to the GS or the IIC. The second thing about an internal hard disk is that you can't see it plus it does not take more room than the external drive. In fact it takes less room, saves you on having an extra power supply socket and no wires at the back.

I mention the power supply, and what about it, well on my inner drive it's automatic voltage switching from 80v to 260v and 40hz to 80hz the Vulcan has a switch at the back of it to change the voltage. The fourth object is the fan, it comes with one because it gets very hot. I can say, mine is very noisy as well. It is not all up and up there is one down side to it, if you fill the drive totally and want to add another drive to it you can't. You have to get an external drive. The capacity of an internal hard disk is from 20mb to 200mb yes 200mb, access speed at 68ms.

These points are for the Vulcan, ranging from 20mb to 200mb from Applied Engineering and the Inner drive, ranging from 20mb to 100 mb from Applied Ingenuity who make a 20 and 40mb inner drive for the IIC called CDrive. Cirtech's inner hard disk is on the board itself ranging from 20 and 40mb. Access speed is 28ms and uses the same system as the other two (which might be faster), but they have a SCSI card as well on it so to expand you don't have to buy another card. Talking to Cirtech they say that the 16 line bus from the hard disk has to be converted into 8 bus because the slot's only have 8 bus lines. On top of that AE and AI don't mention that if you take out the power supply the warranty is not validated. As well all of the voltage problem is gone and the fan as well. (when this comes out this will compete very well with the other two internal drives).

The hard drive I'm writing about is the inner drive from AI. What I got when I opened the box, was the inner drive, the control card, a small manual, a warranty card, a repair sheet,

a plain blue card (this is used for any one who has got a card in slot one) and a utility disk. I read how to put the inner drive in from the manual and followed it, and how to change the start up slot in the control panel (it missed out a few points mainly how to get out from the control panel). Then came installing the drive. When I saw the words 'take out all cards out of the slots' I said straight away 'No way'. I found out I could do it with out taking a single card out.

First of all I took off the power cord, then the cover was off the GS, then I took out the power supply by levering the tag at the front of the power supply, first to release the power supply then I pulled it out, I was careful because it was still connected to the board, there was room for me to do that and the wire connected to the board was long enough to do the job. Then I took the connector from the board by pulling it out gently. I got out the inner drive and the card it was connected to it but in the manual it says we had to connect it ourself but when I got the inner drive it was done for me. So I got the drive put the wire to the board then the inner drive was installed making sure the two notches were clipped in. Then I put the card in slot 7. For the people who have a card in slot one, use the blue card so the card is protected from the metal case of the inner drive. What you do is stick it to the side of the inner drive facing the card in slot one.

After all that, I close my GS connected the screen, and put it on top of the GS and then the power cord was connected up. So at last I was set up to start using it. When I switch it on I heard the fan go and then GS/OS V5.0 was loading in 20sec the Finder was up (and twice as fast as the 3.5" drive). There were two inner drive icons. The reason why is ProDOS can only see 32mb at one time and because it was a 40mb drive (actually a 42mb drive) it was split in half.

I started to look at what I had on the drive. When I was doing that every time I accessed the inner drive a small box flickers at the top right corner in super hi-res and in the 80 column mode a block flickered at the top right corner as well. Looking at what I had,

it has got over 3mb of Public Domain software, shareware software, pictures, and sound samples. On top of that it has got 800k worth of fonts with over 100 fonts. Plus GS/OS and that all free. I copied AppleWorks GS in to it and ran it, it took only 15sec to load and run and that's fast (In the manual it said it has got its own driver in the system driver's folder which runs 3 times faster than the apple SCSI driver. If the SCSI driver from Apple was used it will work fine with the inner drive, which show how flexible it is but 3 times slower).

The software on the 3.5" disk was on the drive anyway. There was a formatter, park's for ProDOS 16 and ProDOS 8, and a disk doctor. The information files were with the "about" NDA There is a CDA as well which tells how big is the inner drive, how much you have used from it, where it was formatted eg factory and when, and the name of the drive.

In the manual it says how to back up the drive and bring it back using the Apple backup program. It explains as well how to use DOS 3.3 on the inner drive which is a program called Dos Master (This works with all hard disks).

When I shut down the Finder it automatically parked the drive. I use ProSel as well and that worked 100% and optimising works as well.

My conclusion is the drive is a first class product which works well, it is fast and very compatible. The software for the inner drive is written well. This drive might be useful for the people who move the GS about because it's in the box. I'm for the automatic voltage switching system too. The things for improvement is the manual and the installation of the inner drive. Plus the fan can be quieter (it sounds like it's taking off).

You can get the drive from MGA SoftCat. They bundle a copy of Copy II+ with all hard drives that they sell.

The price shown includes VAT and Post and Packing.

Jihad Jaafar

info

Product: Internal Hard Drive

Maker: Applied Ingenuity

Available from:

MGA Softcat

41 Cinque Port Street

RYE

E Sussex TN31 7AD

(0797) 226601

Price: £599 20mb inclusive

£799 40mb inclusive

Value: ★★★★★

Performance: ★★★★★

Documentation: ★★★

Hot Topics

International co-operation brings us these extracts from Compuserve via Andreas Wennborg in Sweden

#: 5231 S15/Hot Topic
#: 5231 S15/Hot Topic
15-Dec-89 11:00:53
Sb: #Meeting with Apple
Fm: Barney Stone 76004.1524
To: All

Subj: Developer's Meeting With Apple
From: Barney Stone

OK, I promised a report on the November 28th meeting between the board of directors of the now-officially-named "Apple II Developer's Association" and Apple Computer. Here it is, written on-line and off-the-cuff, since I can't seem to find time to write it any other way.

The meeting was held at the offices of Applied Engineering in Dallas. In attendance were:

John Simonson of Beagle Bros., subbing for brother Mark, whose wife had just had another baby.

Tom Weisaar of A2-Central.

Roger Wagner of Roger Wagner.

Bob Hardman, VP of AE.

Mike Harvey, publisher of Nibble, and Dan Muse, editor-in-chief of inCider, both of whom were added to the board by general agreement after Dan and Paul Boule of Nibble expressed interest in getting involved.

Nancy Stark, Manager, Apple USA, Apple II & Peripheral Marketing.

THIS IS VERY IMPORTANT: Nancy is on our side. Believe it. She's just taken over a tough new job, and she needs our support. As one of the group leaders on the development of the IIGS, she obviously has an emotional stake in this, just as we do. I have not used her name here before because she asked us to help avoid a flood of phone calls or letters. PLEASE GIVE HER A CHANCE TO GET THE JOB DONE! Time spent responding to gripes is time NOT spent on new marketing plans, or on convincing her bosses to pay for them. If you have something you want to pass on to her, leave me an e-mail message, or post it here, and I'll see that she gets it. Or, if you prefer, contact one of the other board members.

I hope this doesn't come off sounding like a power play on my part. A year from now this will not be a prob-

lem, but for know, I think it is critically important. 'Nough said.

We spent the entire day together, and discussed a wide variety of topics. Unfortunately, some of the most interesting discussions involved confidential information that I can't go into here, so I'll have to give you a general impression, and time will tell if I'm right or wrong:

□ The Apple II is not about to be dropped by Apple.

□ There are new products on the horizon, although, of course, not everything we would like to see.

□ Apple knows that there are major problems with the current marketing of the Apple II. They are open-mindedly going about designing a new marketing plan. Changes won't happen overnight, but they should happen reasonably soon. What will the changes be? Will they be soon enough and dramatic enough to turn things around? THEY don't know yet, so obviously neither to I! Hopefully they will tell us more in 60 days or so when some decisions have been made.

□ Nothing's ever as easy as it looks or sounds from out here. Someday, somebody will write a book about the history of the Apple II. Along with the greatness will be a history of blown and missed opportunities. And perhaps a last-minute recovery from the brink.

Sorry there isn't more meat here. Perhaps the real news from the meeting is simply that there WAS a meeting, and that the person in charge of marketing the Apple II was there and actively soliciting our input and suggestions on better ways of marketing the Apple II.

One last thought: Now that we have opened this channel of communications, we must also

open others. Time and again Nancy had to tell us that we were going into areas that were not in here department. We need to talk to Evangelism and developer support and others, and Nancy promised to help us make some other contacts. We will be working on that, and reporting any news as it happens.

Apple II Forever! (Well, at least for a few more years?)

Barney Stone

#: 7942 S15/Hot Topic
07-Jan-90 13:42:47

Sb: #Good stuff!

Fm: Marc Farnum Rendino 74040.73
To: All

OK folks.

There are all sorts of "Gloom and Doom" discussions. Let's take a look at the other side. Not to be in "ignorant bliss", but to try to keep from being so lopsidedly negative.

What's happening that's positive?

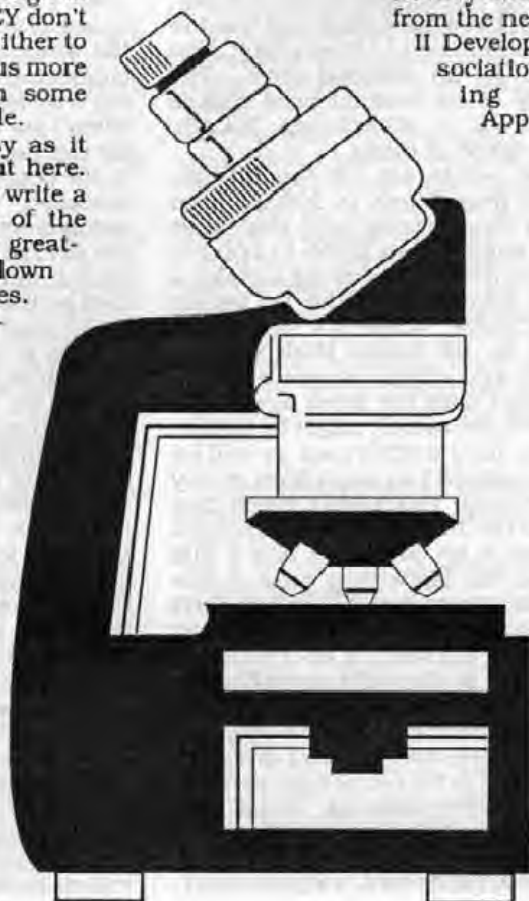
What have you seen or heard that's a good sign or an indication that something good might happen?

I'll start with a few things I've seen/heard/experienced lately. (Apologies to anyone who's seen this elsewhere.)

Reports from all over indicate that Apple II's (mostly GS's) have been selling like crazy over the holidays. Often, Mac's and MS-DOS machines have been ignored, even over a salesperson's recommendation!

The more machines there are, the more developers will think seriously of the GS.

Barney Stone, fresh from the new Apple II Developers Association meeting with Apple, tells



us that there are good signs from Apple, and more importantly, Apple marketing! That there are some new things coming. Not everything we'd like (never the case!), but significant things nonetheless.

Barney has been at the forefront of movements to get Apple to pay more attention to the Apple II. Personally, I trust him when he says there are positive developments.

In another discussion on America Online, Jim Merritt (of Finder fame, et al) left a message that I interpret as saying "If you like System 5.0, you ain't seen nothing yet! You'll love 1990!" (As I say, that's my interpretation - read the message yourself.)

Kennet Technology (AKA The Engineering Department, consisting of a some former Apple II engineers) has a device called the Rapport which, when connected to the drive port allows both internal and external drives to read 720K MS-DOS format disks. But that's not the half of it.

They also make an external drive (Drive 2.4) which handles all ProDOS, Mac, and MS-DOS formats, AND their own 1.2 and 2.4 Meg formats. (2.4 Meg!)

Rapport and Drive 2.4 were originally made for the Mac, BUT the Mac and GS drive ports are virtually identical. As a matter of fact, apparently, several people are using the combo on GS's now.

To fully utilise the hardware may require a native driver for the GS. So far I've gotten conflicting info on whether or not such a thing might be forthcoming, but it's a relatively trivial programming task.

If enough people ask for it.....

#: 7960 S15/Hot Topic
07-Jan-90 15:40:20
Sb: #7951-Good stuff!
Fm: Bob Consorti, FCP 76004,1523
To: Marc Farnum Rendino 74040,73

Marc,

>>but it's a relatively trivial programming task.<<

There ain't no such thing as a trivial programming task. A driver to handle that drive (and all its combinations) would be much more difficult than most. The Apple 3.5 driver uses an ingenious mechanism of not track caching but track reading on large block requests to obtain such good performance under GS/OS. Such a is probably possible with the Drive 2.4, but to make it work with 400K, 800K, 1.4 and its own >2 meg format would not be a weekend project. They are really TED (The Engineering Dept.)

and I have been talking with them on that subject and a number of other items and I might have some good news regarding that product shortly.
-Bob Consorti, FCP -

#: 7952 S15/Hot Topic
07-Jan-90 13:48:10
Sb: #7942-Good stuff!
Fm: Marc Farnum Rendino 74040,73
To: Marc Farnum Rendino 74040,73

Apple just released (free!) a set of development tools for the 8-bit Apples! Yes! Apple IIe's, IIc's, etc! They are apparently included in the first issue of a new technical publication called "develop" which is in both print and CD-ROM form.

(If someone has better, or more up-to-date info on this, please add it, or correct me.)

Look for two or three new products from Innovative Systems (of FPE fame) soon. My first guess would be a hardware debugging device of some sort. Maybe a graphics accelerator or coprocessor?



Just my guesses, but after the FPE, I'm excited to see

what they've cooked up!

I just got a 45 Megabyte SyQuest removable drive from MicroTech in East Haven CT. Virtually every removable system from every manufacturer uses a SyQuest mechanism. I just happened to pick MicroTech, but there are many others. (It was for our DTP guy who uses a Mac, but hey! I had to try in on my GS first! :))

It's amazing. The SyQuest mechanism is well known and well respected. It uses 45 Meg removable cartridges that are much like 3.5" disks in their use. Pop one in and it appears on the desktop. (I'll use Finder as an example.) Eject by dragging it to the trash or the "Eject OA-E" menu item. In the latter case the dimmed icon stays on the desktop which probably means that it's possible to copy between or duplicate the cartridges.

Advanced Disk Utilities has no problems with it at all. Of course, it may be partitioned to take full advantage

of the space. I also tested it with ProSel-16 - no problems.

In the case of a new, unformatted cartridge, a low level format is easily accomplished. Finder and ADU allow the standard 1:1 or 2:1 interleaves.

I also used HFormat (by Tim Grams I believe) to play with interleaves between 0 and 30 (0 being the default set by the manufacturer and 30 being rather silly. :)). Interleave didn't affect it much. (I timed with ProSel-16.) It was of course very noticeable at a certain point, but other than that, it reported times that are at least as fast as my CMS SD60 (a Seagate I believe, rated around 25ms) and possibly as fast as my Quantum 40 (19ms, 12ms w/cache). Now that's fast! The manufacturer claims 17ms and my tests show that can't be far off.

All this with a GS/OS generated driver. Imagine what kind of speed we'd see with a native driver. On the registration card I told them to write a native GS driver. If enough people request it...

The equipment and the manufacturer both strike me as very solid and

professional. The drive mechanism has safety features (that aren't bothersome) to prevent a cartridge from being removed while it's spinning. There are power, access, and

mounted status lights. The SCSI connectors (two) on the rear are standard 50 pin and two SCSI cables (50 pin to 50 pin and 50 pin to 25 pin) as well as an external terminator are provided. The SCSI ID is set via two buttons and a rotating ID wheel on the rear panel. (One button increases the ID while the other decreases it - nice touch.) There is also an extra switched outlet on the rear.

The drive mechanism cost under \$1000 and cartridges were under \$100. (Less with a Developer discount.) Think of it as a hard drive with unlimited capacity; one that, when the media goes bad (and it will), is easily replaceable - for under \$100! I think it's well worth it.

Overall I heartily recommend this drive and this company to any GS owner (as well as any Mac owner). The only problem now is convincing my boss to buy one for me, and my wife to let me get one for home! :)

I am in no way affiliated with any of the above mentioned companies. I'm just very excited about the possibilities!

Marc Farnum Rendino



Apple Finder

Elizabeth Littlewood has been collating a list of magazines and other useful source of things Apple

APPLE II SPECIFIC

The Apple IIGs Buyers Guide
(Quarterly magazine of reviews and product listings)

The Apple IIGS Buyer's Guide,
5615 W. Cermak Rd.,
Cicero,
IL 60650-9884, USA

Subscription rates:
Payable to REDGATE COMMUNICATIONS CORPORATION,
UK 1yr \$30.00
(US funds Only)

A2-Central on disc.

A monthly disk based journal (although you can subscribe for paper only) aimed squarely at the Apple II series - Apple II, IIc, IIe and GS.

A2 Central
PO Box 11250
Overland Park,
KS 66207
USA

Subscription rates:
1 year (12 issues) \$28 \$84 (with disc)
2 year (24) \$54 \$162
3 years (36) \$78 \$234

Comments:
A2 Central also sell bound copies of their back numbers which runs to 4 volumes (soon to be 5) available at \$14.95 each, or \$39.00 for all five. If you see no other Apple magazine, then at least see A2 Central!!! It's not half bad.

Also:-
Stack-Central published by A2 Central
3.5 disks - 6 times a year
Newsletter/magazine for HyperStudio users.

INCIDER (also incorporating A+ magazine).

Subscription Department,
PO Box 58618,
BOULDER,

CO 80322-8618, USA.

Subscription rates:
1 year
Surface \$45.97 or Airmail \$80.97
(NOTE.. US Funds ONLY)

Nibble Magazine
Monthly magazine for Apple II

Nibble,
52 Domino Drive,
Concord
MA 01742, USA.

Subscription rates:
12 issues per annum
\$89.95 airmail and \$39.95 surface - which usually is about 4 weeks late. US funds only.

Comments:
It is Apple II specific, and is very good for type-in programs both Applesoft and ML (and they work!).

Scarlett
Magazine monthly (I think) and lots of PD stuff for the Apple II.

Big Red Computer,
423 Norfolk Avenue,
Norfolk,
NE 68701, USA

Subscription rates:
\$28.00 pa.

Comments:
Some good PD stuff apparently, but more information required.

MACINTOSH SPECIFIC

MAC TUTOR
P.O. Box 400
Placentia, CA 92670
Phone (714) 630-3730

Subscription rates:
Information required

Comments:
MACTUTOR is a MUST to any one programming with the Mac.

ASSOCIATIONS

'Tech Alliance'

A good association for Macintosh & Apple II programmers.

Address:
290 SW 43rd Street
RENTON, Washington 98055
Phone: (206) 251-5222

Publications: Call A.P.P.L.E. (Quarterly) (for II users.)
MacTech Quarterly

Comments:

1) Delivery somewhat variable. Pre GS coverage in CallAPPLE now limited, but very good on GS. There is a good bulletin board which can be called direct using Bell 300 baud. (Tel (206) 251-0543)
2) It is great value for programmers, with a lot of technical info and a catalog (in the best APDA tradition) to order hardware, software and books from TechAlliance.

International Subscription rate for 1 year (4 issues):
Surface mail: \$45 Air mail: \$60

NOTE

TechAlliance is no longer taking subscriptions for CallApple. What its status will be in the future is not yet certain.

A.P.D.A. Apple Programmers and Developers Association.
For both Apple II and Macintosh Programmers.

Address:
A.P.D.A.
Apple Computer, Inc.
20525 Mariani Avenue
MS: 33G
Cupertino, CA 95014
U.S.A.

Publications:
Quarterly catalog with some magazine content.

Comments:

They provide a comprehensive service to developers of both Apple and third party products. The latest programming tools are always available.

Rates:
\$35 per annum for European membership payable by Mastercard/Visa.

Notes:

This is the official source of Apple developer products. They are now run by Apple themselves, and are quick and efficient. Goods are shipped by and dispatched by TNT carrier and so are not mailed in the USA. You must sign a standard US letter of assurance covering the exporting of goods to approved countries only.

MORE MGA APPLE II BARGAINS

APPLEWORKS v1.3	£99.95*
APPLEWORKS v2.1	£149.95*
APPLEWRITER II	£49.95*
ART LIBRARY 1	£9.95*
ART LIBRARY 2	£9.95*
COMPUTER CHECK-UP	£19.95
COPY II+ v8.4 (5.25")	£24.95
GRAPHICS SCRAPBOOKS each	£14.95
GRID DESIGNER	£19.95
KERMIT (ProDOS)	£4.00*
LET'S MAKE GREETINGS CARDS	£9.95*
LET'S MAKE SIGNS & BANNERS	£9.95*
LET'S-M CALENDARS & STATIONERY	£9.95*
NEVADA EDIT (CP/M)	£39.95*
NEVADA FORTRAN (CP/M)	£39.95*
NEVADA PASCAL (CP/M)	£39.95*
NEVADA PILOT (CP/M)	£39.95*
plusWORKS II	£29.95*
PRINT MAGIC 5.25"	£29.95
PUBLISH-ITI v1	£69.95*
PUBLISH-ITI DESIGN IDEAS	£19.95
P-ITI EDUCATION GRAPHICS	£19.95
P-ITI LASER PACK	£19.95
P-ITI PEOPLE, PLACES, & THINGS	£19.95
P-ITI SYMBOLS & SLOGANS	£19.95
THE LAST ONE (CP/M or DOS)	£49.95*
TYPEWRITER	£19.95

ACCESSORIES

II+ 80-COLUMN SWITCHBOX	£9.95*
IIe ENHANCEMENT KIT	£39.95*
CS-300 JOYSTICK	£19.95*
CS-600 JOYSTICK	£29.95*
CS-808 JOYSTICK	£24.95*
DISK NOTCHER	£4.00*
DOS (3.3) USER'S MANUAL	£7.00*
MOUSE BRACKET	£3.95*
MOUSE MAT (9.25x6.5")	£3.95*
PASTEL PAPER PACK (100)	£4.95*
RS-232 D-25 M/F MINITESTER	£9.95*
RS-232 D-25 M/F SURGE PROTECTOR	£4.95*
SERIAL GRAPPLER+	£49.95
Z-80 CARD	£24.95

PRICES INCLUDE VAT & *-POSTFREE
(CURRENT STOCK ONLY)

MGA SoftCat

PEAR TREE, APPLIEDORE

KENT TN26 2AR

0233-83294/83571



MGA SoftCat

have moved to

**41 Cinque Port
Street
Rye
East Sussex
TN31 7AD**

Tel: 0797 226601

Fax: 0797 226721

MGA 2nd-user

BARGAINS

IIe 64k COMPUTER	£149.95
II+ 48k COMPUTER	£75.00
ACCELERATOR IIe	£99.95*
ACCELERATOR II	£79.95*
DISK II 140k 5.25" DRIVE	£49.95*
DISK II DRIVE (D-19)	£59.95*
DISK II CONTROLLER CARD	£19.95
DUODISK CONTROLLER CARD	£49.95*
POWER SUPPLY (EXCHANGE)	£34.95*
ROBO 1000 CAD SYSTEM	£99.95*
MOUSEPAINT II	£14.95

PRICES INCLUDE VAT & *-POSTFREE
(CURRENT STOCK ONLY)

MGA APPLE II BARGAINS

EDUCATION

ALPINE TRAM RIDE	£11.95*
ANIMAL HOTEL	£11.95*
BIKE HIKE	£11.95*
CLOWNING AROUND	£11.95*
MATHS IN A NUTSHELL	£11.95*
PIPELINE	£11.95*
TRADE (PD)	£4.00*

GAMES

ALTER EGO: FEMALE/MALE each	£4.95
ALTERNATE REALITY II (DUNGEON)	£9.95
ANDROMIDA TRILOGY (3 GAMES)	£4.00*
BATTLE OF ANTIETAM	£14.95
BLUE POWDER, GREY SMOKE	£14.95
COLONIAL CONQUEST	£9.95
COLOSSUS IV CHESS	£14.95
COMPUTER AMBUSH	£9.95
DEFENDER (PD)	£4.00*
DESTROYER (IIGS ONLY)	£14.95
ELITE	£9.95
FIELD OF FIRE	£9.95
FIGHTER COMMAND	£9.95
GEMSTONE HEALER	£9.95
GETTYSBURG	£14.95
HALLEY PROJECT	£9.95
HELICOPTER RESCUE (HERO)	£9.95
HIGH SEAS	£14.95
LANCELOT	£9.95
MECH BRIGADE	£9.95
MINDSHADOW	£9.95
MOVIE MONSTER GAME	£14.95
MURDER ON THE MISSISSIPPI	£9.95
OIL BARONS	£9.95
PHANTASIE II	£9.95
RDF 1985	£9.95
REBEL CHARGE AT CHICKAMAUGA	£14.95
RINGS OF ZILFIN	£9.95
ROADWAR 2000	£9.95
SHILOH	£9.95
SOUTH PACIFIC QUEST	£4.00*
SPACE SHUTTLE	£9.95*
STREET SPORTS BASKETBALL	£9.95
STREET SPORTS SOCCER	£9.95
SUB BATTLE SIMULATOR	£9.95
THE GAMES: SUMMER/WINTER EDITIONS each £19.95	
TIME AND MAGIK	£9.95
TRACER SANCTION	£9.95
WORLD GAMES	£9.95

PRICES INCLUDE VAT & *-POSTFREE
(CURRENT STOCK ONLY)

We apologise for re-running last December's advertisements but our IBM PC has let us down.
This would not have happened if we had bought a Mac!

Hotline News



Dave Ward rounds up the latest news

AppleWorks BUG (all versions)

Over the years I have consistently been bombarded with AppleWorks problems where a diskfile has apparently been corrupted by AppleWorks. The problem always manifests itself when the disk is nearly full and the file you've just tried to save can no longer be accessed. Providing the user stops here the file can easily be re-constructed by a 'Zap' program such as Block Warden from the ProSel suite. Attempting to use the disk further will lead to the file being no longer recoverable. It has always been my contention that AppleWorks by itself or in conjunction with ProDOS has been the cause of these numerous problems but have never been able to re-construct such a disk. Well, I recently received a 5.25" diskette which contained such a corrupted NOTES file from er anyway this diskette had all the usual symptoms where the pointer in the catalog to the index block of the file was incorrect but the data still resided on the disk; I soon managed to reconstruct the file.

Since I suspect that readers might be reluctant to accept my contention regarding AppleWorks screwing up files I have spent some time on this one and can at last tell you all how to reconstruct this problem (if you want):

- 1) Format a new 5.25" diskette and copy a few files to it but leave about 90 blocks or so free.
- 2) Save a Wordprocessor file to it. Make a few changes and then use Open-Apple-S to save the amendments.
- 3) Add a few more files to the diskette to leave just one or two blocks free.
- 4) Fire up AppleWorks. Version 3.0 will do just fine, load in the wordprocessor file and make a few changes and then use Open-Apple-S to save it. You will be informed that the disk is full and for permission to overwrite the old file. If you say "no" then all is ok and the old version of your file will be intact and you can save the file onto another disk. If you say "yes" then you've got a corrupted file that

cannot be read again.

- 5) Now try loading in your wordprocessor file. My system just hangs but you may get other results. Block Warden (from the ProSel package) shows the corruption.

This problem appears with all versions of AppleWorks that I could lay my hands on including the latest version 3.0. No disks seem immune although I could only try 5.25", 3.5" and a couple of RAM disks. My best advice would be to stop using AppleWorks data disks when they become nearly full and if perchance you see the aforementioned warning then say "no" and save the file to another disk. It's a good idea to have a few pre-formatted disks ready. In fact if you have a file bigger than half the size of your disk you would be advised to use newly formatted disks each save! Generally you won't know that you have a corrupted disk until you try to load in the file next time. To be sure you could try re-loading it after you've saved it just to check.

□ The authors of AppleWorks have been informed so a fix may be forthcoming *

If you ever think that you may have a corrupted diskette stop immediately, write-protect it, make a copy and finally copy over the files you really need to another newly-formatted working diskette. Backup the other files if you haven't already got a backup. If the diskette is corrupted you've now got the best chance for a fix. This is because saving another file could overwrite some of the data you want and then only a 3 foot black stick with white ends will help.

Beagle Compiler

We all know what an excellent program the Beagle Compiler is. However, version 2.6 and 2.6A had extra compiler.system files to allow users to access the extra memory in the Apple memory card and the Apple IIGS memory card.

Unfortunately these had the following problems which were bought to

my attention and confirmed when I later purchased the product:

1) The Cirtech plusRAM card which superseded the Flipper is not compatible with the Beagle Compiler in any machine in any slot. Even the program diskette will not run properly; once the first compiled program is run it immediately falls into the monitor at \$081B.

2) An Apple IIGS system with an 2 Meg plusRAM GS2 and with GS.SYSTEM installed gives very variable results :-

- 1> All variables get lost.
- 2> Some variables get lost or altered.
- 3> For-Next loops and GOSUBs do strange things.
- 4> Large arrays take literally ages to load. One string array consisting of 1317 sets of 10 items took 10 seconds per set of 10! Par time on an Apple //e with 1.023MHz 65C02 and 256K RamWorks is 12 seconds for the lot!

3) I tried another Apple IIGS with a 1 Meg AE GSRAM and this suffered from 4> above but only took 3 seconds per set of 10!

4) An Apple IIGS with an Apple 1 Meg memory expansion seemed ok although the loading of string arrays was still ponderous compared to the Apple //e referred to above.

5) GS.SYSTEM has one other problem which is manifested with all the Apple IIGS systems I could check out. When you finish running a program the memory used by variables is not released to the system: so after a few runs of my program which had 85K of variables, in various arrays, I found that the original 1.6 Meg of free memory dropped to only 120K! This was also reflected in the Control Panel.

I informed Alan Bird (the author of the Beagle Compiler) that these problems existed and he responded by sending the Beagle Compiler version 3.0 on a 5.25" diskette. He claimed that the Apple IIGS problems were with the memory management of the computer and he had worked around it. This version appears to solve all the problems except number 5> above. String arrays now load faster into the GS memory than the auxiliary slot memory cards such as RamWorks and Multi-Ram.

The Beagle Compiler now supports two floating point cards FPE and Fastmath by patching the system files appropriately. Any member with these cards and the Beagle Compiler version 3.0 might care to produce a review for the magazine.

Note, please, that the Compiler must be invoked from BASIC.SYSTEM version 1.1 as this is the version the Compiler is written around. The compiler won't work from the later versions 1.3 and 1.4.

Dave Ward 🍏

AppleFest

We thought that this report
was of such interest that we
should take space to print it

#: 62351 S16/Conventions/Parties

22-Sep-89 02:56:07

Sb: AppleFest - Day Zero

Fm: Joe Walters 72406,742

Greetings from MAUG Central at the AppleFest!

Present are myself, Larry Miller, Dave Stahre, David Winograd, Peter Chin, Dave Gair, Craig Contardi, Mike Enarson and Ray Merlin.

The AppleFest continues to shrink. Lots of missing vendors make for a back wall that, year by year, moves closer to the front wall. Before long, it's going to be awful hard to get in there!

Wandering around the Macintosh (Formerly Apple Computer Inc) booth, we saw very few things involving the Apple II. There were a couple of IIgs's displaying the same screen we saw in the recent Online Today: "Check Startup Device." One side of the booth had an entire line of Macs, the last being labelled "Macintosh Portable." In place below the placard was a little calculator. Would have made a nifty picture.

Roger Wagner was setting up his booth, and pointed us over to Apple's "Hospitality Booth," where a GS with a touch-screen was in process of being set up. That GS will be running HyperStudio, and people will be able to walk up to it and get information about the AppleFest. Roger said it was going to have a videodisc player set up with it, so we're looking forward to checking out that little production when it's fired up.

Applied Engineering, Checkmate and Beagle Bros were still setting up their booths, and there were no new items in immediate evidence.

First Class Peripherals, Applied Ingenuity and CMS were all displaying their hard disks.

There are a lot more Macintosh-related booths in evidence this time around. In addition, companies like Broderbund and Electronic Arts, which make products for both lines, were featuring their Mac products.

Laser has the same large booth that they had in Boston, and they have their new Laser 128/EX2 on display hooked up to a MIDI system. Nice to see someone doing some Apple II development!

Overall, the mood is guarded. There is the usual apprehension regarding what Apple has in store for the Apple II line, and curiosity surrounding some late hot rumours. We'll know tomorrow, and we'll pass it on.

As always, the best part of the AppleFest promises to be the MAUG fun & fellowship!

□ Hello again! The first day at AppleFest San Francisco '89 has come to a close.

WRAP SESSION. One of the stranger sights we came across in the Fest during the setup was at the booth operated by "Computer Selection." They had a huge pile of boxes, all containing Apple products. As we walked by, a couple of guys were wrapping the entire pile in clear plastic wrap. We figured that maybe the Cambridge Security people were told to "keep this under wraps."

□ As usual, the first item at the Fest was the Keynote speech, this time by Jean-Louis Gasse of Apple Computer Inc (Makers of the Macintosh Personal Computer!).

J-L's presentation was a bit strange to say the least. Apparently somewhat tired from all his efforts promoting the new Mac units the last few days, he tended to wander and ramble aimlessly. Recapping the history of computer development, he spent a long time discussing Visicalc and its contribution to the way we do things today. He also went into a lot of his history at Apple France.

He had a few interesting little zingers interspersed throughout the speech. At one point, he made reference to "creatively inspired and argumentative third parties," and referred to his first arrival in Cupertino as arriving in "Nicotino."

He also mentioned the first board meeting he attended, where the first thing he noticed was a young man in faded blue jeans sitting on a credenza at the back of the room and picking his toes. "You can guess who that was," he said.

Discussing the development of programming and programmers, he admonished new programmers. "Don't learn to program in BASIC." Seems BASIC promotes some unspecified bad habits and a language like PASCAL is more proper for the beginning programmer.

He repeated some of the demos we saw at the Boston Fest that were used to show the difference between System Software 4.0 and 5.0; he used it to differentiate between the performance of the "original" IIgs and the new ROM 03 IIgs. Later he booted and demoed System 5.0 on the original IIgs to show that the same functionality is available.

He then showed an input device designed for hand-capped users. It's a mouse substitute that plugs into the ADB port. The cable reaches to a headset which tracks the cursor across the graphic screen; a puff-switch replaces the button. Using this and a desk accessory, he showed how it's possible to compose and edit text without using hands. He received applause for this demo, and mentioned that this third-party device was not yet available but would be soon.

From there, he went into demonstrations of HyperStudio and AppleWorks GS. He showed how it was possible—and easy—to import data from a Macintosh Word processor into the AWGS spreadsheet and make charts from it. This was a simple yet effective demonstration of the networking capability of the two systems.

At this point, Jean-Louis opened the floor to questions. Microphones were placed in the aisles to facilitate the process. Here are some samples; the quotes aren't verbatim, but as close as I could get them in the dark room!

Q: Are there any plans for a laptop Apple II?

A: "I don't know of any at this time. The Macintosh Portable is not a laptop, not a note-taker. I'd like to have one, but we have no plans for that beyond the IIc+."

Some fellow from AppleLink, or America In Space, or whatever they're calling themselves this week, spoke on at length and finally asked how Apple will be promoting the Apple II with the Macintosh in schools. Gasse answered, "I'll have to refer your question to my friends in Marketing. I have a hard enough time being the Product Scapegoat."

Asked about rumours that the Apple II line would be discontinued in 1992, he responded along the line of "If we did that, it would make a lot of our engineers very unhappy." Note that this is not exactly a denial.

An unidentified man, probably affiliated with a company developing the Forth language, asked what Gasse thought about Forth in light of his earlier remarks about BASIC. Gasse answered, "I wouldn't recommend it. It's great for very dedicated applications, but it's not good for a beginning programmer."

Q: Are you continuing Apple II development?

A: "Yes, in hardware and software."

Q: Can you comment on the relationship between the Apple II and Macintosh down the road?

A: "We started producing common peripherals four years ago, and continue to produce common peripherals today. As for a machine like the Bridge, it's difficult. A machine that does everything may not do any one thing well."

Q: Will you be putting GS technology in the //c box?

A: "That's technically very difficult. The GS is sophisticated and complicated. It's very challenging to deal with the thermal issues."

Q: Will you be continuing ProDOS-8 level development?

A: "No, unless we discover a new horrible bug. We do from time to time— sorry about that!"

Q: Was the recent new GS the "new CPU" John Sculley promised us last year?

A: "Yes."

At this point, he tried to wrap things up, but failed. He had made mention a couple of times that GS development had been held back by their (Apple's) inability to get reliable high-speed 65816's. Little did he know that William Mensch, the 65-series CPU designer, was in the audience and couldn't sit still for that. Walking up to one of the microphones, he held up some little packages and said "I have here three 12-MHz 65816's. If you'll order them, we can ship." Or words to that effect; things got a little hectic here and it's hard to make exact reproductions of what was said.

This turned into something of a confrontation, with Mensch saying he's been trying to get it through to Apple that the high-speed chips are available, and Gassee saying he hadn't heard from Mensch since the GS came out. Quickly, those freedom-loving fellows from Cambridge shut off Mensch's microphone so that most of the audience could only hear Gassee's side of the conversation.

Gassee said he didn't want to turn the thing into a public debate (the rest of us wanted him to!), and Mensch asked if they could meet privately. Gassee told Mensch to call him at his office Monday. About now the Cambridge goons came and dragged Mensch away from the mike, and Gassee closed down the presentation.

□ This turned out to be the hot topic of the day, with speculations and opinions flying about constantly. If the high-speed chips are available, why can't AE and Zip Tech and so on get any? If Apple really has been held back by unavailability of high-speed chips, why haven't they contacted Mensch? And so on. There's a lot more to this story than meets the eye.

Mensch appeared throughout the day in various places, usually with a mob of Apple II users hanging around and questioning him.

From the keynote, we staggered out into the rest of the show.

FIRST THINGS FIRST. We ran to the CMS booth to pick up bags. Again, CMS wins the Bag Wars, giving out the best, biggest and strongest bags in the show.

BRIMSTONE AND VAPOR. One of the first stops we made was at the Zip Tech booth. The first surprise there was our discovery that the Zip booth was half-manned by folks from Lance Taylor-Warrens L&L Productions. They were giving demonstrations of their software, and the IIGs we had seen at the booth was manned by Andy Nicholas. Andy was showing the development version of ShrinkIt GS, which L&L is going to market for \$39. This revelation was met with some surprise, and it's a safe bet that there will be much discussion of this in the future.

"ShrinkIt" is now a registered trademark of L&L.

That was the only IIGs in the Zip Booth. I went over to one of the Zip employees and asked to see the new Zip GS. Guess what— it's not here. She assured me that it will be here Sunday. We'll let you know!

Zip's primary competitor, Bits & Pieces, was listed as an exhibitor in the show guide. We went by their numbered booth, only to find that it was empty and labelled with a sign indicating that it now belonged to a local radio station. Looks like they're a no-show.

NOT NECESSARILY THE HINDENBURG LEGACY. As mentioned before, there is no Micol Blimp at this show. However, the AppleFest skies were not clear! For no known reason, there were no less than four little inflatable Goodyear Blimp models floating around various stations at the show. Why are they here? What do they want? When will they go away?? The people deserve to know! We're all in danger from the explosive helium they no doubt contain!

GOOD HELP IS SO HARD TO FIND THESE DAYS. MAUGer Bob Sherman, who writes for Time magazine, had tried to get into the show early using his press pass, trying to get some early interviews. Refused admittance, he went back to the registration booth and somehow wrangled a Staff ribbon. That got him in with no difficulty. Sleep secure, America! Cambridge Security is on the job!

BATCHES? The A.P.A. booth was busy throughout the day, and MAUGers drifted by and picked up their Steenkeeng Batches.

The Press Room contains one each Macintosh and Apple IIGs. There is an ImageWriter II printer in there, but it doesn't work. Though no disk drives have disappeared, at least one copy of AppleWorks 3.0 did.

The San Francisco International Toy Museum was doing a brisk business selling the "Winkle," a little square thing you pin on to your shirt. Two LED's blink on the front of it, driving anyone facing you insane.

Barney Stone was holding court at the Stone Edge booth, demonstrating DB Master and handing out copies of the new issue of II At Work.

□ Hello again! From MAUG(tm) Central (Larry says I have to use the "tm" thing from now on). It's the Day Two report from AppleFest!

Again, we start with some unfinished business. Forgot to mention in yesterday's report that once again the highlight of the entire AppleFest was the Apple IIGs Buyer's Guide panel. Hosted by MAUGer Joe Kohn and featuring such distinguished luminaries as MAUGer Merry Perry, MAUGer Peter Chin, MAUGer Larry Miller, MAUGer Joe Walters, and Mike "I really prefer the Macintosh" Markowitz, the panel drew an estimated 23,000 attendees. Including such diverse IIGs-specific topics as software, hardware, games, PollyWogs GS, freeware/shareware and networking with Macs, this was the only event in the entire Fest to not only make the National network news, but to actually knock all hurricane reports off the headline spot.

And I managed to completely crush the microphone with my bare hands!

I may have exaggerated a little up there.

One more thing: I mentioned that Jean-Louis Gassee had referred to Cupertino as "Nicoitino" yesterday; I'm told today that several others heard that word as "Meccatino." Okay, fine. Whatever! I might ask Gassee myself, but I'm afraid of being beaten up. More on that later.

□ Again we arrived at the Fest this morning in time for the keynote. As in the last Boston AppleFest, the second day keynote speaker was Bernard Gifford, Apple's VP of Education.

Apparently intending to avoid any chance of a repeat of yesterday's confrontation at the keynote, the Cambridge Security experts came in and removed the microphones from the aisle before the keynote began.

Gifford was introduced in a bizarre manner by a female assistant who came out and talked endlessly about her new business card. Finally he appeared, and the keynote got under way.

He had a pair of IIGs's set up and used both to demonstrate some interactive video.

The first demo featured the use of the Video Overlay Card in conjunction with PaintWorks Gold. Some of this demo was previously seen at the Boston show, especially the sequence with the kids on the see-saw showing the mathematics of moments, and the cute little basketball video featuring Bernie "Dr. B" Gifford.

The second involved a video of an archeological expedition involved with digging up some dinosaur bones, and

showed how interactive video can be used to turn a simple documentary-type report into a full interactive educational experience.

He also used a "VidClip Remote" NDA to control a VCR device. The NDA resembled the controls of a standard VCR, and he was able to program it to rewind and fast-forward as desired to show a couple of video clips in sequence.

Referring to Gasee's demonstration of the handicapped input device from the day before, he compared the use of such devices to the ones used by the famous physicist Stephen Hawking. Unfortunately, he continually referred to him as "Brian Hawkins." Well, some people can ferret out the secrets of the universe, and some can slam-dunk a basketball.

□ From there, we went to the show floor to see what was what.

PUBLI-WHAT? TimeWorks was demonstrating PublishIt 3, and it bears a lot of resemblance to its predecessors. Again, it runs on any 128K Apple II, and operates in double-hi-res. One fellow asked if they would be doing a IIgs-specific version, and the rep answered, "No, we'll always support the entire Apple II line. Besides, changing the resolution and graphics is a lot of work."

□ **FRIDAY NIGHT AT THE FIGHTS!** The subject everyone was talking about today was yesterday's confrontation between Jean-Louis Gasee and Bill Mensch. There's a lot more to this story than meets the eye!

Dave Stahre asked an anonymous source at an anonymous IIgs-accelerator manufacturer about 12-MHz accelerators, and was told that they'd be able to make them "when Bill Mensch can't carry all the 12-MHz 65816's in the world in his pocket."

A new outfit called ASIC Enterprises announced a breakthrough in 65816 speed capabilities. They're calling their CPU (take a deep breath) the "AE165C816P-20," and say it will run typically at 20 MHz.

We talked to ASIC president William (not Bill!) Hayes, and he said their primary interest initially will be makers of IIgs accelerators. He said Apple hadn't shown much interest in it as yet (though some Apple engineers had), and that an anonymous maker of a popular IIgs accelerator card has shown interest.

We were surprised to learn that they aren't making 65816's as licensed from Mensch's Western Design Center; they basically looked at the 65816 instruction set and reverse-engineered the concept. Basically, they designed a 65816 from scratch, and ended up with a faster design than the original. If they can pull this off, it could make some changes indeed!

He did say they're still in the prototype stage, and have produced no actual chips as yet. However, Hayes is one of the original designers of the RocketChip, so he has produced results in the past against the odds.

Later in the evening, we learned that there apparently was another confrontation between Gasee and Mensch later on Friday. As the story goes, the two of them met privately and the conversation wasn't going well. Gasee got up to walk out. Mensch tapped him on the shoulder, and Gasee physically pushed him away. After that, some Apple security types (not to be confused with Cambridge security types) bodily removed Mensch from the scene. So the story goes. We have no idea as to how accurate it is.

There does appear to be some bad blood developing (or increasing in intensity, as the case may be) between Apple and WDC. It may be difficult for any headway to be made in improving relations between the two companies anytime soon.

□ **I'M GAME IF YOU ARE.** In the afternoon, the IIgs Games session drew a big crowd of people. MAUGer Peter Chin represented the Apple IIgs Buyer's Guide, and Jeff Cable and Lefe Low were there from iNcider. Also speaking were Bill Heinemann (who wrote Battlechess, Tass Times, Neuromancer, Crystal Quest and the Bard's Tale series),

John Brooks (Tomahawk, Hunt for Red October, and the forthcoming Rastan for the IIgs), Brian Lent (Xenocide), and Greg Thomas (the forthcoming "Task Force," which will be released under a different name for some unspecified reason).

Several demo disks were shown, to great audience approval.

It was discovered that Xenocide, Nucleus and one or two other packages do not work with the new ROM revision 3 IIgs. Micro Revelations promised that an update to Xenocide is being worked on to correct the incompatibility. One of the Xenocide folks said that the incompatibility springs from Apple not following their own rules in some of the changes made in the new machine. Is it really possible that Apple might violate their own rules???

□ **NOT VAPOR.** Wally Bradford dragged me over to the Quality Computers booth to show me a stack of 10 MHz RocketChips that they were selling. They're shipping!

VAPOR. On the other hand, a Zip Tech rep told me that the 8 MHz Zip Chips are NOT shipping yet, but... you guessed it... they will be shipping in a month or so!

I asked about the Zip GS. The rep told me that they "couldn't get it to the show." Just what does that mean? I asked if the thing didn't work. She said it works fine, they just can't get it to the show. She did not elaborate on what that could possibly mean, but did say that, contrary to yesterday's statement, they won't have it here tomorrow either.

But don't worry! She assured me that the Zip GS will be in full production by November! They don't even have a functional prototype to show, but they'll be shipping them in November! Place your bets, place your bets. Pete Rose is giving odds of 100 to 1 against.

KACHE BASH. On a sort-of-related-to-accelerators note, an engineer at Ohio Kache gave me some serious hell about Larry Miller's review of their Multi-Cache in the recent Apple IIgs Buyer's Guide. There was an unfortunate misprint in the article, resulting in an incorrect low rating in the performance category, so this fellow picked me to upon whom to vent his spleen.

Many Festgoers were happy to see that CMS was not only exhibiting here, but they are also showing an aggressive commitment to supporting the Apple II line. They were demonstrating their new 45-meg removable cartridge SCSI drives, which are pretty impressive. This drive does not work with Apple's SCSI card, but uses a proprietary interface card instead.

Shawn asked them about the ROM upgrade for owners of existing CMS drives using IIgs System Software 5.0. They said that the new ROM will be shipping October 1.

□ Synnovation was set up today, and were showing their new video card for the Apple IIgs. Sort of.

They're basically doing market research here, trying to see if there is enough interest in a VGA-class card for the IIgs to justify carrying it to full production.

They had two monitors set up showing some very impressive moving graphic displays, but told some conflicting stories about just what was driving the screens. There were no computers visible in the booth, and the monitors were sitting atop stands which were wrapped with curtains that concealed whatever was underneath. Sort of like the display at the Zip Tech booth at the AppleFest two years ago.

They told us three different stories:

Larry: The one on the left was run by a VCR, and the one on the right by a computer (containing a wire-wrapped prototype card).

Shawn: The one on the left was run by a computer, and the one on the right was run by a VCR.

Joe: Both were run by VCRs.

□ Larry and I were surprised to notice at the Applied Ingenuity booth a sign proclaiming "the first internal hard disk for the Apple //c." We took a close look, and they indeed had one set up. They had removed a //c internal

5.25 drive and replaced it with a 3.5" 20-meg hard disk unit. We didn't see any specs, but the rep did tell us that the "CDrive" does not use the SmartPort for data transfer. This was also obvious from watching the thing— it moved too fast.

AI is also promoting the CKeeper, a multifunction card for the //c: up to 1.25 megs of RAM, battery-backup for RAM, internal clock and some type of debugging aid.

They were also advertising several other products, including a VCR Hard Disk Backup, external hard disks, and IBM-to-Apple keyboard translators that let you use IBM keyboards with Apple II computers.

□ Hello again from MAUG Central, West Coast Division! Some of the few MAUGers who remained after the show ended drifted in and out through the evening, so there were still some contributors to all this, including myself, Dave Stahre, Shawn Goodin, Larry Miller, Loren Damewood, Ed Floden and Craig Contardi.

□ Well, they say all good things must come to an end... AppleFest San Fran '89 is over, and if anything, it left us with more unanswered questions than we had when we got here.

□ **KEY HOLE.** There was no keynote address today. Instead, they had inCider running some sort of game show thing. No one knows why Woz didn't show for this one: Cambridge certainly didn't mind running his photo on all their pamphlets hyping the show.

□ **I'M AS MAD AS HELL AND I'D RATHER NOT TAKE IT ANY MORE BUT SOMETHING TELLS ME THEY'RE GOING TO KEEP SHOVELLING IT TO US ANYWAY.** Let's take a moment now to discuss Claris' "presence" at the AppleFest.

As you no doubt know by now, Claris for some inane reason decided not to exhibit at this show. Zillions of reasons/excuses have been suggested, and probably none of them are on target. Whatever the reason, Claris did announce that they would have a PRESENCE at the Fest, in the form of representatives demonstrating their products at other vendors' booths.

On Friday, there were indeed several Clarisites floating around the floor, but by Saturday they were hard to find. I finally got a look at one of their rotation schedules, and at no time from Saturday morning on were there more than two people from the company present & on duty at the AppleFest.

I spoke at some length with one of their AppleWorks GS folks, and found that the people who came to the Fest were all volunteers, not sent by the company.

On the GS side at least, this resulted in their not having any tech support people present at all. I am told that John Kinder was there from the AWGS tech side, but I never was able to track him down.

On the 8-bit side, Elisa Nakata (Product Manager for AppleWorks 3.0) was at the First Class booth throughout most of the show, tirelessly giving demos and answering questions from curious passersby. A shiny spot in a dirty situation.

AppleWorks was the first program to knock Lotus off the top of the software charts. Even today, AppleWorks and AppleWorks GS are two of the highest sellers in the Apple II market. For the company that produces these packages (and makes so incredibly much money doing so) to not bother showing up at either of the year's only two national Apple II trade shows can be nothing less than a deliberate and personal insult to every one of us.

The actions of the volunteers who did take their own personal time to come to this show are commendable; these folks may well be the only friends the Apple II users still have at Claris. It's the policies set by the company's management that are to be condemned.

Claris is transparently following the example of Apple in using the Apple II to make large amounts of money and in ignoring the users entirely. And they damn well ought to

be ashamed of themselves.

□ **EXCESSIVE DECIMALISATION.** Also on the subject of That Which Was Not There, there was much talk throughout the show of Apple IIgs System Software 5.0.2, an apparently imminent update to the buggy 5.0.

Apple themselves, of course, wouldn't talk about it. I spoke with a rep demonstrating the IIgs, and he didn't want to say anything. He referred me to Apple's Information booth. I went over there to ask about it, and the fellow said that 5.0.2 was indeed under development and to be released sometime soon, but he didn't want to give any specifics. He asked to be excused to find a PR person who could state the official line on 5.0.2, and I told him not to bother. Who needs to hear "We can't comment on..." one more time? I didn't want the official statement. I wanted the real story!!

Well, as we'll see, at least one product is planning to ship with 5.0.2 this week (they almost released it at the show, but there's always One More Bug), and the new System was in some forms or others present in a few places around the Fest.

An anonymous rep at an anonymous hardware company tried to find it for me, and finally located it in the hands of another company rep; this copy was in a sealed envelope which he said was bound by their non-disclosure agreement with Apple to remain sealed until Monday.

That's right. Apple doesn't want it talked about until everyone at the Fest goes home. They couldn't even announce the thing while we were there.

Keep your eyes and ears open; there is sure to be some talk about this update in the next several days.

□ **SHAWN SEZ...** The surprising ignorance of some Festgoers showed up nicely at the A.P.A. booth. We can't believe the number of times that people with Macintoshes stopped by, trying to buy an AppleWorks-based product for use on their Macs. I suppose that if they used "// in a Mac," it might work. Then again, they'd probably blame the slowness of "// in a Mac" on the Apple // software.

Other common questions:

Q: "Does ProSel (-8 and -16) run under System Software 5.0?" A: Yes

Q: "Is Alpha Check available for the Mac?" A: No

Q: "My Mac is an Apple, so why won't <insert name of any Apple // software package here> work on my Mac?" A: Don't bother. Sell your computer and buy a chicken farm.

Shawn referred folks to other booths whenever possible, if that booth had a product that a customer needed. He should've received a commission from Quality Computers, Beagle Bros. Applied Engineering and Roger Wagner for the sales they made.

□ **UNSUBSTANTIATED RUMORS AND INNUENDO.** At least one well-known company that heretofore has been selling products only for the Apple II has already quietly moved over half of their R&D to Macintosh development.

One of the no-shows may have been "absorbed" by one particularly prolific advertiser; in any case, they're at least developing a fast little product for the big guys.

And lastly, we have an eyewitness report of a machine seen running the IIgs version of Mean 18. This machine wasn't built by Apple.

□ **INTRACRANIAL VACUUM.** An early morning session was titled "Desktop Publishing on the Apple II." I have been trying at every AppleFest since 1987 to see an actual Laser printer actually printing something from an actual Apple II, and hoped to actually see it happen here.

I walked into the room, noted that the equipment consisted in entirety of one Macintosh and one Apple IIgs—no printers at all— and left.

Can you be taught to fly without an aeroplane? Will a class on woodcraft teach you anything if there's no wood? Good grief.

□ In the afternoon, several MAUGers joined a small crowd attending a session "To get the most out of AppleWorks GS" run by MAUGers Craig Contardi and Ray Settle.

□ **BARK FOR THE BEAGLES.** You can tell that Dave Gair has been awfully busy these last few days, because he hasn't jumped all over me for not mentioning TimeOut. Starting Friday at the Fest, TimeOut packages with the version 3.0 update were being sold.

Further, TimeOut TeleComm has been released, as have all the new Beagle versions of the old StyleWare packages.

Head Beagle Buddy Chuck Newby tells me that with his own activities at the Fest, and considering that there are now over 200 Beagle Buddies, we should not expect the BBuds to receive their upgrade packages right away; he estimates it will take him about two weeks to assemble and mail all the packages. Patience!

AA FROM AE. I neglected to mention that on Friday, Applied Engineering began selling the long-awaited Audio Animator over the counter. It's finished, and it's shipping! Watch for a review of the beastie by MAUGer David Winograd in the next issue of the Apple IIgs Buyer's Guide, only two and a half months away!

WAS, NOT WAS. Quality Computers continued to sell the 10 MHz RocketChips from the absent Bits & Pieces today. At \$189 a shot, upgrading to the fastest Apple II that can be purchased (and taken home) seems pretty reasonable.

Meanwhile, the Zip Tech booth looked deserted most of the day; over half their booth was used by L&L Productions, with only two or three Zip reps in the thing at any one time.

The lady who assured me Friday that the prototype Zip GS would be shown today was nowhere to be seen. The lady who told me they'd be in "full production" on the things by November was there. The Zip GS prototype was not.

CLIP JOINT. Over at Roger Wagner's booth, we were pleasantly surprised to see a display by Unlimited Software, which has been turning out some great Macintosh clip art for several years. They've now entered the Apple IIgs market, and have already made large quantities of IIgs clip art available to us, suitable for use in any clip-art-appropriate application.

We hoped to have some great news from Roger Wagner, as we had been told by Pam Wagner on Friday that HyperStudio—the fully implemented version—had been completed the day before.

Unfortunately, there were still a couple of little insects lurking about in the software, so it's not QUITE out yet.

Pam told us that the Add Text Object function didn't work due to a problem with System Software 5.0; System 5.0.2 enables them to implement this function, and Roger told us he is hoping to have those nasty bugs out of there and all functions implemented sometime this week, at which point he'll start shipping the updates out.

Please remember the nature of bug-fixing operations on complex programs, and don't hold him to that!

But rest assured that it is truly close to completion and that it will ship—maybe this week—with System Software 5.0.2 on the disk. If you've sent your registration card in, you'll automatically receive it.

DRIVER NOT INSTALLED. A Hewlett-Packard dealer was operating one of their ink-jet color printers from a Mac II. It was turning out some incredibly vivid and precise color printouts. Beautiful. Selling at the show for under \$1000, this is a machine that could generate some serious interest in the Apple II world. If H-P would just write a driver for it... I keep remembering something Don Lancaster once said, along the line of: "They make some of the best hardware in the industry, but Hewlett-Packard never sells more than six of anything." Something like that.

CRASS ACTION? First Class Peripherals angered Applied Engineering (and a couple of Apple IIgs Buyer's Guide writers and management types) a bit by posting a side-by-side display of the GSBG reviews of the Sider D9 and AE's Vulcan hard disk units. Larry Miller had rated the Sider

drive at an overall 9.2, and I had given the Vulcan an overall 8.8; FCP was touting this as some sort of vindication and confirmation of a major victory over AE.

As it's really not that meaningful to compare those "overall" values between internal and external hard disks, several of the GSBG folks involved wished they hadn't indulged in this little bit of possibly deceptive paper-hanging. Some bad feelings were needlessly generated.

□ **GRAPHITewriter.** There is no question that one of the busiest booths at the Fest was the one operated by Chuck's Big Pencils. No kidding. As Dave Stahre pointed out, Chuck was never seen sitting still. He had continuous business throughout the Fest, selling Big Pencils ranging from several inches in length to a few feet in length, and all a couple of inches in diameter.

It was really strange to see Chuck's, which we expected to be the joke of the Fest, turn out to be a serious hit exhibitor. I have a feeling this isn't Chuck's last AppleFest!

□ **SATURATION POINT.** After three days of intense AppleFesting, most of us were ready to pack it up and head away from it all.

While it wasn't a great Fest, it was absolutely a good one. All the MAUGers who came will tell you it was more than worth the effort and expense.

And most will agree that the high point of this show occurred about two hours into the show and Jean-Louis Gasse found himself in that unplanned tete-a-tete with Bill Mensch.

This one was sort of a "Dark AppleFest" if you will, due to the near-complete lack of truly new product announcements and the absence of such notables as Claris and MediaGenic.

The show continues to gain in the number of Macintosh-related exhibits and activities, and simultaneously continues to shrink in size. I can't produce incontrovertible evidence that those two facts are related, but I can feel it in my bones.

This was the first AppleFest at which I couldn't find Roy Elnreinhofer, the president of Cambridge Marketing. He usually wanders about the floor at these shows and is easy to talk to; I wanted to ask him politely if he'd consider starting up an Apple II show. After all, when they used to do those, they were quite successful.

What all this portends for the future of the Apple II is anyone's guess, but we're sure getting a lot of clues about how to make that guess.

One thing's for certain—Apple has not been honest with us. They have stood up on the stages and made promises to us, and immediately forgotten them completely. And they show every sign of intending to continue to do just that.

A year ago, at the previous San Fran AppleFest, John Sculley promised us increased support for our line, an immediate end to using the Apple II as a resource to generate Mac development money, and a new Apple II CPU within twelve to eighteen months. See what we've really gotten from that.

On those occasions when you come across this attitude from Apple, don't feel that you have to put up with it. Let yourself be heard.

On the bright side, there was a lot of fun and fellowship for most attendees, especially those affiliated with a group. I feel safe in saying that no group had any more fun than did we of MAUG. This widespread family of ours seems to delight in the occasional reunion, and there are always the new faces along with the old to match to those little glowing names that flow across our text screens.

The next AppleFest is scheduled for May 11-13 in Boston. There is no telling yet how many or which vendors will be there, but it's a safe bet that the MAUGers who come will enjoy themselves thoroughly.

And as always, there will certainly be SOME surprises!

= LIVE! From the AppleFest! =< Joe Walters >=



The Nibbler

Well, here we are well in to the second decade of microcomputing. It has been an fascinating time for us all so far, and no doubt the next ten years will be little different.

Our old friends MGA found their existing premises were just too small and so have moved house to Rye in East Sussex. As Jon points out, Apples from Rye does not quite cut as well as Apples from Appledore, but never mind Jon, take a slug of Rye and keep on supporting the Apple fraternity.

The people at Bidmuthin tell me that AppleWorks 3.0 is now selling like hot cakes. However those of you with less than 1mb memory will find that AW 3.0 is not really or them. The original AW 2.0 can be had complete with a TimeOut enhancement of your choice for £113.85 all in. This is a chance to get AppleWorks at a very reasonable cost, either for those of you who do not own it yet, or those who are still using AW 1.0!

As the going rate for AW 3.0 is around £206 all in, and the upgrade from AW 2.0 is around £75 total, it would pay you to buy this offer of AW 2.0 and then upgrade to AW 3.0. The AW 3.0 enhancement does not include full manuals, so this way you would have the complete set! As well as the usual dealers, you might try Clocktower for AppleWorks upgrades as well as other products. Alan also tells me that there is a new release of ThunderScan software for the IIGs. The full window environment is now supported. For an upgrade, or for AW 3.0, contact: Clocktower, Alan Finn, 86 Weston Park, Crouch End, London, N8 9PP (01) 341 9023.

Have you ever had your AppleWorks files suddenly become un-

usable? A new program, *Repair-Works*, will salvage what it can for you. It will not repair all damaged files, but will recover many that would otherwise be lost. You could also try using *Ramup 4.0* to allow you the next best thing to multi-tasking on the Apple II. It uses your

RamCard to store programs in their working state simply switching instantly between them at will. Both these programs are £39.95 all in from MGA.

Still on the subject of AW 3.0, it was mentioned in Peter Davis' review that if you had enough desktop memory, a printer buffer was automatically enabled. With over 500k of clear desktop, I have not yet seen this happen. Can anyone enlighten us on this one?

On a similar front, Bill Rees asks if there are any fonts for Fontrix that include the pound symbol. I cannot remember if Fontrix uses standard fonts or not. Can anyone help with this one as well? Bill concludes his letter by pointing out that comms programs like Data Highway/Antelope are ideal for packet radio!

Just to show the Macintosh brigade that I have not forgotten them, a tip for users of the Apple CD Rom. Some owners have been having problems with these drives. The official cure believe it or not is to disconnect the fan! It seems that someone thought it would be a good idea to fit a fan to keep the thing cool, however this sucks all the dust and other nasties over the works! Disconnecting the fan and dusting out the inside cures the problem. I ask you, has your CD sound player got a fan?

The new System 7.0 software for the macintosh gets nearer. It is now expected to be shipping to customers in the summer. There has been great confusion about which computers will be able to use this revolutionary interface. We now have the full specification, and put quite simply it will work on all machines from the Macintosh 128k upwards as long as

they have a minimum of 2mb memory. This may seem a contradiction, but if you upgrade your 128k to a 2mb MacPlus, then System 7.0 will run! All features but the virtual memory will work on all the machines. You need to have the 68851 PMMU fitted to a Macintosh II, or have an SE/30, IIX, IICX or IICI to get the full virtual memory available.

Those of you who bought the Apple scanner as being the best value for money at the time, may now regret it is limitation of 16 grays. Abaton who make the scanner for Apple, have now released an upgrade board that is easily fitted to either their own Abaton Scan 300S or the Apple scanner. This provides 256 grays, ample for a high quality half-tone. The controlling software is in the form of a desk accessory allowing use from within programs. Contact Acme Computer-Distribution Company on 0246-221394. Cost is around £650 all in.

Elsewhere in the magazine you will see the Microtech/SysQuest removable hard drive mentioned. I have been using one of these for a few weeks now, and can report that they work beautifully! Why did not anyone really sort this kind of thing out before. For the cost of a normal 45mb drive, you can fit as many 45mb cartridges as you like at around £70 a time. The cartridges themselves are only five inches square by half an inch thick. How vulnerable they will be in long term use goes through my mind, but no doubt time will tell. The access time is a respectable 28ms, so they are no slouch. In practice you need a fixed drive to act as your boot drive and general program storage. A removable drive then acts as your main file storage, your fast backup system and your program cache as well. The cost per megabyte is not much different from floppies but one of these cartridges takes up much less room than 56 floppies!

The Microtech drive will also work on the Apple II's as well of course, though it needs its own SCSI card for some reason. It can be partitioned to give two 21.5mb sections and is very fast to use.

We have mentioned the older hard drives that are coming on the market for the Apple II. Most of these will not run the newer ver-


sions of ProDOS, but it is reported that the Symbiotics drive will. If you are having problems with these drives, try Eric Sausse on 0724-855795 who might be able to supply you with software or manuals, or Andy Harrington on 0922-693593 for further help.

Having got back to the II line, we now have the first reported bugs in System 5.0 and 5.0.2 for the IIs. It seems that if you have been running a P8 program and return to GS/OS, then a SAVE AS can trash a file if you save over one that already exists. I presume that we shall see a bug fix soon, though I do hear rumours that System 6.0 is on its way. We shall soon have overtaken the Macintosh in System versions!

I mentioned a source of power supplies for home brewed SCSI drives a few months back. I had of course forgotten about that other source of such things, and was pleasantly reminded that they still exist, and that you can still order products on their very own bulletin board. Call Distel on 01-679-4414 voice or by modem on 01-679-1888 at 300 baud, 01-679-6183 at 1200/75 or 01-679-8769 at 1200/1200.

If you are still hankering after an Apple IIs and can't quite afford the price asked in the UK, try Brendan Jordan, Budget Computing Services Ltd. 120 Malahide Road, Dublin 3, Ireland. Brendan has taken advantage of the lower price of the IIs in Ireland, and is selling the things all over Europe. He can be contacted on 0001-33-23-58. Remember that the a 3.5 drive that fits a Macintosh also fits the IIs, that you can use a standard RGB monitor or a television with a SCART connector as your display, and that you can use a Macintosh keyboard and

The sparkling new storage solution -



Diamond hard disks

Diamond high capacity SCSI hard disk drives have been developed by Cirtech especially for the Mac and Apple II computers.

These super slim, fast drives are supplied ready formatted for immediate use and give you the top performance and value you've come to expect from Cirtech. Their stylish good looks in colour-keyed platinum grey perfectly complement your system.

- ★ Available in 32, 48 and 100 Megabyte sizes.
- ★ High performance drive system - 28 mS average access time
- ★ Dual SCSI connectors for simple daisy chaining of other SCSI devices
- ★ Supplied complete with fully shielded SCSI cable
- ★ Slimline case is fully screened for minimum radio interference
- ★ Has the same footprint as the Mac SE and Plus
- ★ Whisper quiet drive system with very low power consumption

Mac Versions:
Connects directly to the SCSI port on the Mac SE, Plus or II. Supplied ready formatted for instant use.


Apple II Versions:
Supplied pre-formatted and complete with a Cirtech SCSI interface for use on the IIGS, IIe or II+. Support software included for up to four SCSI devices. Fully compatible with GSOS ProDOS, DOS 3.3, Pascal and CP/M.

Diamond drives for flawless performance!



	32 Megabytes	48 Megabytes	100 Megabytes
Mac	£475.00	£545.00	£845.00
Apple II (including SCSI interface)	£520.00	£590.00	

(Prices quoted exclude VAT)

Check your Apple 2000 Catalogue for details of special members offers



CIRTECH (UK) LTD. Currie Road Industrial Estate, GALASHIELS
Selkirkshire, TD1 2BP, Scotland Telephone: (0896) 57790
Telex: 9312130256 (CI G) Mailboxes: 84:CPDOO1 (Telecom Gold) AAH555 (Source)


mouse as well. All you need from Brendan is the CPU! However, don't forget you may have to pay duty and VAT as you import the thing.

Finally, if any of you Apple II enthusiasts thinks like I do that Apple is just not supporting the Apple II, and would like to write directly to John Sculley to complain we publish his personal address in Cupertino. If we can persuade the powers that be that there is still a great deal of life in the old dog yet, they might take a more enlightened view of its future. Even with the reports that the development

of the II has not yet been killed off it is still necessary to convince the management of Apple Inc!

John Sculley
Chairman CEO
Apple Computer Inc.
M/S 38-A
20525 Mariana Avenue
Cupertino
CA 95014
USA

I hope to see you all in person at the AGM.

The Nibbler 

£75.00

MEMORY PRICES ARE REDUCED YET FURTHER! 80 NANOSECOND
SIMMS WHICH WORK WITH ALL MODELS OF MACINTOSH

UTILITIES & DA'S

Acta Advantage (Outliner includes DA version)	95
After Dark (user definable screen saver)	20
Calculator Constructor 2 (create DA calculators)	54
Top Honors (Design PostScript certificates)	69
Calendar Maker (customise calendars)	29
xxCan Opener (view data without the application)	75
Capture (screen image capture)	45
Copy II Mac (backup protected software)	23
Disk Express (speed up, defragment hard drives)	44
xxDiskLock (data security)	125
Disk Quick (catalogues floppy and hard discs)	32
Disk Tools Plus (9 essential DA's)	39
xxDisk Top 4 (useful DA collection)	call
Dynadex (digiz with filloax printout)	89
Fedit Plus (file and disc editor)	29
xxFileGuard (data encryption)	135
Font/DA Juggler (multiple DA's & fonts)	44
Gofer (search key words on multiple text files)	54
HFS Backup V3 (old faithful HD backup)	63
Hyper DA (read HyperCard files from a DA)	39
Icon It (design flexible icon menu bars and more)	49
InitPicker (choose startup Init's)	30
MacInUse (register time spent on applications)	59
Master Juggler (Suite II rival)	59
Multiclip (multiple copies & pastes)	55
MultiDisk (best hard disk partitioner)	44
On Cue (switch between progs avoiding finder)	39
QuickKeys (macro maker, time saver utility)	69
QuickDex (lightning fast DA database, essential)	35
xxQuickLock (lock out prying eyes from your data)	75
Redux (best backup program on the market)	59
Retrospect (most sophisticated archival backup)	150
Screen Icons (colour utility collection)	49
Stepping Out 2 (software big screen extender)	65
Smart Alarms (DA reminder/diary system)	55
Smart Alarms 1-4 user (multi user diary vers.)	120
Smart Alarms 1-8 user (more users still)	180
S.P.A.M.M. (software maths co-processor)	57
xxStopWatch (time usage of applications)	69
Suitcase 2 (manage 100's DA's & fonts)	49
SuperSpool (best ImageWriter spooler)	59
SuperLaserSpool (Laser & ImageWriter spooler)	89
SAM (Symantec's anti virus utility)	65
SUM II (essential utilities plus guard against crashes)	89
Tempo II (the most powerful macro maker)	85
Thunder II (top spelling checker)	59
Virex (best virus tracer & eradicator of all)	59

WORD PROCESSING

Acta Advantage (Outliner includes DA version)	95
Expressionist 2 (DA equation processor)	79
MindWrite (amazing outliner WP)	155
MacWrite II (major update handles graphics)	155
Microsoft Word 4 (the new standard)	195
Nisus (lullest featured WP with graphics)	220
Thunder II (the best spelling checker around)	59
Vantage (excellent DA WP that was MacSink)	60
Wordfinder (220,000 word DA Thesaurus)	35

GRAPHICS

Canvas 2 (amazing power, colour paint & draw)	165
Comic Strip Factory (create your own comics)	49
The Curator (graphics database & organiser)	85
Clarix CAD (state of the art CAD)	475
Desk Paint (full paint/draw progs in a DA)	75
Dreams (new generation CAD)	249
Freehand (PostScript art and text)	365
Illustrator 88 (auto trace, colour, blending...)	415
Image Studio (grey scale image control)	415
MacDraft (biggest selling drafting tool)	175
MacDraw II (the classic draw program)	275
MacroMind Director (state of art animation)	450

Pixel Paint 2 (top class colour paint)	235
Pixel Paint Professional (32 bit state of the art)	385
Streamline (Adobe autotracer)	299
SuperGlue 2 (save and transfer any file or image)	69
Super 3D ver 2 (colour Mac II support)	299
Studio 1 (amazing B&W animation and painting)	75
Studio 8 (new colour paint program)	255
VideoWorks II (animated presentation)	210

DESK TOP PUBLISHING

xxColourStudio (32 bit photo retouching)	1150
xxDesignStudio (yet another page layout program)	595
LetroStudio (font manipulation DTP)	395
MacKern (build your own tables for any font)	125
PageMaker 3 (the most intuitive)	425
PageMaker Studio (collection of templates)	89
Publish It (most features, exceptional value)	250
Quark Xpress 2.1 (the most powerful)	495
Quark Style (mini Xpress with templates)	235
Ready, Set, Go 4.5 (the second most features)	399
Smart Art 1,2,3 (text manipulation DA)	each 99
xxTypeStyler (UK) (manipulate text & fonts)	call
xxTypeAlign (allows curved text with ATM)	79

PSION MOBILE
COMPUTER

The MC400 is a remarkable new laptop with built in Word Processing, spreadsheet, diary, calculator and terminal emulation. It's 600x400 screen is very high quality and it has a full size QWERTY keyboard. It is book sized, weighs less than 5lbs and comes with a cable to hook up to the Macintosh.

£795.00

FONTS

Adobe Fonts (full range at discount prices)	call
Adobe Type Manager (outline screen fonts)	69
Art Importer (turns PostScript into fonts)	95
Blanca (new display face includes grey versions)	45
Fancy Fonts (64 new versions of built in fonts)	45
Fraction Fonts (in Helvetica & Times faces)	45
Fontastic Plus 2 (bitmap font creator/editor)	65
Fontographer 3 (laser font creator/editor)	295
Fluent Fonts (2 excellent discs of bitmap fonts)	36
Fluent Laser Fonts (quality laser fonts)	59
Monotype Fonts (full range at discount prices)	call
World Class Fonts (2 disc sets of good fonts)	each 49
"The Originals", "The Stylish", "The Giants"	
and now "The Triples" useful for LQ and HSC printers	

CLIP ART

Visual Arts (10 MegaBytes of PostScript Art)	150
MacAtlas EPSF (high quality scalable maps)	115
WetPaint (the best bit map art by miles)	each 49
"Classic Clip Art", "Animal Kingdom", "Printers Helper",	
"Old Earth Almanac", "Industrial Revolution", "For Publish-	
ing", "Special Occasions", "Island Life", "People"	

BUSINESS

101 Macros Excel (diverse and useful macros)	49
Crickit Graph (top graphing tool)	120
Crickit Presents (presentation tool)	275
Extend (quality simulation program)	320
MacMoney 3 UK (home, small business accounts)	75

MacProject II (superior new version)	325
Microsoft Excel (the power spreadsheet)	195
Microsoft Works 2 (5 integrated programs)	159
Microsoft Office (Excel, Word & PowerPoint in one)	425
More II (planning, writing, desk top presentation)	225
Persuasion (Aldus' top end presentation tool)	365
PowerPoint (desk top presentation program)	195
xxRagTime 3 (DTP, Spreadsheet, WP in one package)	350
SmartForms Designer (Clarix' forms package)	275
True Forms Set Up (forms design & layout)	165
True Forms Fill Out (forms fill out)	215
Visual Business No. 5 (business graphics)	299
Wall St. Investor (analysis and database, New vers.)	395
Wingz (best spreadsheet available)	245

PROGRAMMING

Lasertalk (PostScript language editor)	169
Programmers Online Companion	35
QuickBasic (Microsoft's version)	59
Think's C 4 (with source level debugger)	135
Think's Pascal (top rated)	75
TMON (superb debugging tool)	90
True Basic (by the original author of Basic)	65
VIP 2.5 (programmable flow charts)	89
ZBasic 5 (the fastest Basic available)	125

DATABASES

C.A.T (contacts, activities, time-sales aid)	235
DAtabase (new full featured 12A database)	75
Double Helix II (easiest major database)	350
Filemaker II (versatile and powerful, superb)	195
Foxbase+Mac 2 (now even faster than before)	390
Foxbase+ Multiuser (Network version)	550
Omnis Accounting (all 5 modules)	395
Omnis 3 Plus (now the best value by far)	175
Omnis 5 (fast & PC compatible)	425
Panorama (spreadsheet like database)	225
QuickDex (essential lightning fast DA database)	35

HYPERCARD

DTP Advisor (tips and advice on layouts)	59
Icon Factory (2000 icons plus editor)	35
HyperAnimator (sync sound and animation)	115
HyperComposer (create sound & music scripts)	45
HyperBible (King James version on a stack)	150
HyperTutor (stack teaching stack)	39
Plus (takes HyperCard into a new dimension)	119
Reports! (reports designer plus improved printing)	75
Script Expert (HyperTalk in a stack)	49
Silver Screen (movie database, oscars, actors etc)	49
SuperCard (colour Hypercard & more)	125

PC COMPATIBILITY

MacLink Plus (port PC-Mac with codes)	135
MacLink Plus Translators (4 SE/30/11x range)	110
Soft PC Mac OS (PC emulation in software)	250
Tops Flashbox (LocalTalk Net card for PCs)	110
Tops DOS (PC software for TOP's network)	95

COMMUNICATIONS

DaynaTalk (rival LocalTalk accelerator)	125
InterFax (brilliant combined fax & modem)	350
Timbuktu 3.0 (operate networked Macs)	95
Timbuktu Remote (operate remote Macs)	130
TOPS (low cost and efficient networking)	120
TOPS Flashbox (speed up LocalTalk 3 times)	100
Vicom 3 (friendliest & best comms software)	140
WS3000 Modem (300 & 1200 baud)	235
WS3000 V22 BIS (up to 2400 baud)	335

HARDWARE

Cables (ring us with your requirements)	call
DD Floppy Disks (Sony unbranded)	1.00
HD Floppy Disks (Sony unbranded)	1.50

ALL OUR PRODUCTS ARE SOURCED FROM THE OFFICIAL UK DISTRIBUTOR WHERE ONE EXISTS. THIS ENTITLES YOU TO FULL BACKUP AND SUPPORT IN THIS COUNTRY, NOT THE UNITED STATES. ACCEPT NO LESS. THIS MAY BE MORE EXPENSIVE IN THE SHORT TERM BUT CONSIDER WHAT HAPPENS WHEN AN UPGRADE IS RELEASED?

MacLine Policy

- * Credit cards will not be charged until the order is shipped.
- * If a partial order is despatched, the balance is posted free of additional postage charges.
- * All goods are sent by Recorded First Class Mail or by a courier service. A signature is required on delivery.
- * Same day motorcycle delivery in London area is available.
- * Defective software is replaced immediately.
- * Refunds will only be given on unopened packages that are returned within 7 days of receipt.
- * Prices are correct at time of going to press.



VISA

CALL FOR OUR CATALOGUE IF YOU DON'T ALREADY HAVE ONE.

Ordering & Payment

- * To order call Monday - Friday, 9.00 am to 6.00 pm.
- * Add £2.50 per order under £150 in value for Recorded Delivery. On orders over £150 in value add £5.00 for 48hr delivery OR £9.00 for 24hr delivery.
- * Add VAT to the total price, except on books.
- * Payment is by credit card, cheque or money order.
- * Government depts. Educational establishments, and PLC companies are welcome to purchase with an official order.
- * International orders accepted with credit card only. Postage added at cost.

ImageWriter Ribbons (to be or not to be)	3.75
Anet (AppleTalk set at half the price)	25
MacNet (PhoneNet set at half the price)	19
Anti Glare Screen (10.4 SE or Plus)	37
SIMMS (1Mb low profile 80 nanoseconds)	75
Business Laser Printer (as good as Apple's)	2100
Personal Laser Printer (non postscript 300dpi)	1295
HP DeskWriter (300dpi inkjet printer)	750
HP PaintJet (low cost colour printing)	850
MacPlus Mouse (optical mouse, smooth)	55
SE & II Mouse (runner, never gets dirty)	69
MacRecorder II (brilliant audio digitiser)	165
Mac II Stand (vertical floor stand with long cables)	69
Joystick MacPlus (something you've...)	45
Joystick Mac SE or II (always wanted)	59
xxGravis MouseStick (top class joystick)	95
Kurta Graphics Tablet (precise Draw/CAD input)	295
Mac Carry Case (bag for SE or Plus with ext kybd)	55
Toolkit (open your Plus or SE safely)	15
Torx Screwdriver (open your Mac relatively safely)	5
Radius Accelerator (for Plus or SE)	545
Irwin 68000 16Mhz (double speed Mac SE)	150
Irwin 68020 16Mhz (a Mac II in a SE)	299
288 MacLite (portable with MacLink)	299

CHILDRENS

Cosmic Osmo (interactive HyperCard story)	47
Kids Time (5 fun games for 3 to 7 year olds)	29
xxKids Math (sister to above for arithmetic)	29
The Manhole (suitable from ages 4 - 84)	35
xxMath Rabbit (talking arithmetic tutor)	39
Number Maze (learn to count and have fun)	29
Puppy Love (game for 3 to 5 years (Plus only))	19
Reader Rabbit (good reading trainer)	39
Talking Tiles (reading training with voice)	35
Where in World is CSDiego? (10+ geography advtr)	32
Where in Europe is CSDiego? (10+ geography advtr)	35

TRAINING

DTP Advisor (tips and advice on layouts)	59
PageMaker College (tutorial lessons)	160
Typing Tutor IV (excellent way to learn)	39
Learn FileMaker II	each 39
(4 modules for FileMaker II)	all 4 for £140
Learn 88	each 39
(4 modules for Illustrator 88)	all 4 for £140
MacTeach (specify Mac and if HD or floppy)	each 39
(2 modules Macintosh training)	both for £72

TEACH YOURSELF GUIDES TO:

4th Dimension	69
Microsoft Excel	69
Microsoft Word 4	69
PageMaker 3.0	69
HyperCard	69

TUTORLAND Teach Yourself guides are the best and most educationally sound training courses we have ever seen. Learn your software step-by-step through example. The 160 to 200 page tutorials have a consistent layout, giving a complete explanation of each concept (one per page) followed by clear, practical instructions. Dispense with manuals, books and expensive live training. You and your staff will quickly understand even the most complex of Mac software.

MUSIC

Concertware + (8 voice composer, player)	49
Concertware + MIDI (new features)	99

Jam Session (play like a professional)	39
xxPractica Musica (learn music principals)	80
Super Studio Session (now works on Mac II)	69
HyperComposer (sound and music scripts)	45

SCANNING

ScanMan (hand held 4" wide 32 halftones)	265
ThunderScan (amazing quality for low cost)	189
xxColorSet (turn B&W scanners into colour)	275
Read-It 2 (OCR software for most scanners)	285
Read-It Personal (for ScanMan & ThunderScan)	115

DATA STORAGE

Western Digital 20Mb	325
Western Digital 40Mb	430
miniQisk 45Mb	475
miniQisk 70Mb	535
miniQisk 100Mb	720
Rodime 45Mb	495
Rodime 60Mb	560
Rodime 100Mb	720
xxToshiba CD ROM Drive	695
Microtech R45	795
Irwin Tape Streamer	595

xx are our new products this month.

All prices are exclusive of VAT.

Books

Apple Macintosh Book	19.95
Dr. Macintosh	17.95
Inside Mac Vols 1, 2, 4, 5	each 23.95
Inside Mac Vol 3	19.25
Inside Mac X Ref	8.95
Macintosh Family Hardware Ref	23.35
Macintosh Bible 2nd Edition	24.95
Macintosh Font Book	19.80
Macintosh Revealed Vols 1 & 2	each 23.95
MacLANs	19.95
Understanding Hard Disk Management	21.95
Complete Hypercard Handbook	27.45
Guide to Omnis 3	21.45
Excel Advanced User Guide	17.95
Using Excel 1.5	9.95
Mastering Excel 2.2	22.95
Mastering Adobe Illustrator 88	21.95
SuperCard Handbook	23.95
Using Aldus PageMaker 3.0	22.95
4th Dimension	19.95
Guide to Omnis 3	21.45
Design for DTP	12.50
Quark XPress Companion	12.50
Using Microsoft Word 4	19.95
Flying in PageMaker	5.95

GAMES

xxAncient Art of War (quality war simulation)	29
xxAncient Art of War at Sea (salty war simulation)	29
xxAlternate Reality (space role playing fantasy)	27
xxArkanoïd (addictive game of Breakout)	27
xxBalance of Power (use strategy to keep peace)	24
xxBalance of Power 1990 (geopolitics, strategy)	24
xxBridge (from novice to advanced player levels)	29

xxBeyond Dark Castle (more of the classic game)	27
xxChessMaster 2000 (best Chess game)	25
xxChuck Yeager Flight Trainer (colour)	25
xxCrystal Quest 2 (Britain's favourite game)	29
xxCrystal Quest with Critter Editor	49
xxColony ("Best game 1988" MacWorld)	24
xxDark Castle (the classic Mac game)	27
xxDeja Vu (private detective adventure)	24
xxDeja Vu II (Lost in Las Vegas)	24
xxFlight Simulator (the famous Microsoft one)	39
xx4th and Inches (American Football)	29
xxFalcon 2.0 (networkable flight simulator)	34
xxFerrari Grand Prix (formula one simulation)	36
xxFokker Triplane (WWI flight simulator)	29
xxGauntlet (colour arcade game)	32
xxHarrier Strike Mission (jump jet combat action)	32
xxHunt For Red October (sub simulation)	32
xxLeather Goddesses (witty adventure)	15
xxLife and Death (perform actual operations!)	24
xxMacGolf (superb graphics, highly realistic)	35
xxMacGolf Colour (.. and highly addictive)	56
xxMacCourses (extra courses for MacGolf)	25
xxMean 18 (new colour Golf game)	29
xxNetTrek (network space warfare)	42
xxPatton vs Rommel (strategy war game)	19
xxPinball (also includes construction kit)	15
xxP51 Mustang (fast & furious flying)	39
xxPT 109 (patrol boat graphic simulation)	29
xxQuarterStaff (role playing with colour)	33
xxReach For The Stars (galactic war game)	29
xxShadowgate (text/graphic adventure)	24
xxShufflepuck (air table ice hockey)	29
xxSim City (design and run a city)	32
xxSim City Colour (design and run a city)	52
xxSolitaire (9 different patience games)	24
xxSolitaire Colour (beautiful graphics)	24
xxSuper Hang On (motorcycle racing)	29
xxStar Wars (great shoot em up game)	25
xxStrategic Conquest 2.0 (war simulation)	39
xxTetris (award winning Soviet game)	24
xxTetris Colour (brain teasingly addictive)	27
xxTrust & Betrayal (intuition, ethics not bullets)	24
xxUninvited (text/graphic adventure)	24
xxWizardry (graphic adventure)	29
xxZork 0 (classic adventure now in colour)	39

xx Works on Plus & SE only

xx Works on Mac II, Plus, SE

xx Works on all Macs inc CX & SE30

EDUCATIONAL

Special very low Education prices are available on the following products to authorized educational establishments only with official purchase orders. If you are in doubt as to whether you qualify for discounts please call us before placing an order.

MICROSOFT
Excel, Word, Write, PowerPoint, File, QuickBASIC

CLARIS
SmartForms Designer, MacProject, MacDraw II, MacPaint II, FileMaker II, MacWrite II, CAD.

OTHERS
Illustrator 88, Image Studio, LetraStudio, ReadySetGo 4.5, Think C, Think Pascal, Nisus, More II, Omnis 5, Plus, Read II, Redux SuperCard, Write Now, Virox
Five and Ten pack versions also available on some products

MacLine 01 643 4626

WREN HOUSE • SUTTON COURT ROAD • SUTTON • SURREY • SM1 4TL • FAX 642 4621 • VAT No 452 3149 66



MacChat

Norah Arnold looks at updates of three Claris™ products.

Update on Claris™

Claris Corporation, one of the top two vendors of Macintosh software, is a subsidiary of Apple Computer Inc. and develops, markets and supports application software for Macintosh and Apple II computers. It began shipping Claris-labelled products in January 1988 to business, government, education and technical markets. The company's product line includes productivity applications for word processing, graphics, data management, planning, CAD (computer-aided design) and EFP (electronic forms processing).

Claris, with headquarters in Santa Clara, California, and its UK and European headquarters in Stockley Park, Uxbridge, is currently making the transition from Apple subsidiary to independent company.

Claris is now well ahead with plans for implementing a file translation strategy across its core products for Macintosh computers. The strategy, which incorporates a new Claris open architecture technology called XTND, includes file translation capabilities that will allow users to directly import and export word processing, graphics, database and spreadsheet files across multiple platforms.

Claris Corporation's strategy offers the first complete solution for environments where multi-vendor computing systems exist, allowing free exchange of data across networks or other electronic media. Users of future Claris products that include this technology will be able to easily perform tasks such as importing and exporting word processing files in a wide range of formats, inserting IBM or other graphics files into various Claris applications and mail merging with IBM, VAX and Macintosh database files.

The company demonstrated its first step in this process with an update to its popular word processing programme, MacWrite 11. The update, **MacWrite 11 1.1**, supports 30 file translation formats that allow users to transfer data files directly with most popular Macintosh, IBM compatible, mainframe and mini-computer application formats. Additional file translators are available from independent file transfer specialists.

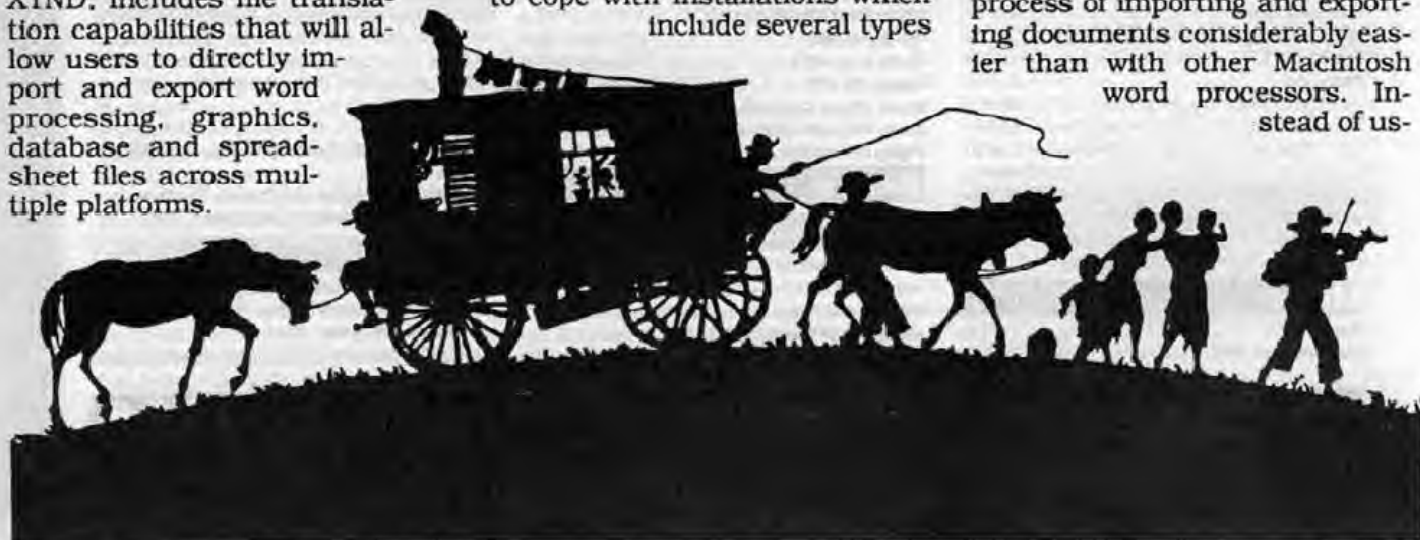
"Customers have been trying to cope with installations which include several types



of computers and many types of software," said Steve Johnson, UK managing director. "Now we can offer file transfer capabilities across different varieties of hardware and software. It's a seamless connection; it's what the industry has been waiting for."

"Claris' file translation strategy is a great example of the Macintosh's advantage in network environments," said Don Casey, vice president of networking and communications at Apple Computer, Inc. "MacWrite 11 1.1 shows how Macintosh transparently gives networked customers the benefits of sharing documents and files among all users, plus the unique power of the Macintosh. These types of products will increase the acceptance of more Macintoshes on more multivendor networks."

MacWrite 11 1.1 makes the process of importing and exporting documents considerably easier than with other Macintosh word processors. Instead of us-



ing time-consuming cut-and-paste operations or file translation utilities, MacWrite 11 1.1 users simply use the "save as," and "open" commands to directly translate a document from one format to another. And by using the "insert file" command, MacWrite 11 1.1 users can insert a multitude of word processing, database and graphics files directly into MacWrite 11 documents.

In addition, the file translator technology included in MacWrite 11 1.1 is designed to allow Claris or third-party developers to add even more file translation formats in the future.

Other new features of MacWrite 11 1.1 include a 100K reduction in the size of the programme and a performance enhancement that increases the speed of the programme by 15 to 50 percent on Macintosh Plus and SE systems, depending on function. The programme also includes built-in virus protection assistance and improved HyperHelp capabilities that allow users to copy and paste from the help system or linked HyperCard stacks directly into MacWrite 11 documents.

MacWrite 11 1.1 is available immediately from authorised Claris dealers with a suggested retail price of £175 plus VAT. Free updates are available to registered owners of MacWrite 11 1.0 upon request.

In a related move, two new specially-priced bundles of best-selling Claris software, both including MacWrite 11, are also available. MacDraw 11, the world's best-selling graphics programme for the Macintosh, and MacWrite 11 are now available together at a special recommended retail price of £395, a reduction of £105. FileMaker 11, the world's best-selling database programme for the Macintosh, and MacWrite 11 are now available together at an

RRP of £295, also a reduction of £105.

"The majority of new customers need word processing software together with either graphics or database packages", said Steve Johnson. "This special offer, available until 31 December 1989, is designed to offer these customers the maximum value possible, and at the same time encourage them to take advantage of the benefits of standardising on the Claris range."

Registered owners of MacWrite 5.0 can upgrade to MacWrite 11 1.1 for £45 plus VAT; owners of earlier versions of MacWrite or other popular Macintosh word processing programmes can trade in their existing software for MacWrite 11 1.1 for £55 plus VAT.

Foreign language dictionaries – for checking the spelling of documents written in French, German and Spanish – are available for £35 each plus VAT.

Claris will begin shipping **Claris Graphics Translator** in early September, a software programme that allows Apple Macintosh personal computer users to share and import computer-aided-design (CAD) drawings created with a wide variety of hardware and software systems.

Claris hope that the programme, which allows the interchange of graphics files between Claris CAD, Initial Graphics Exchange Specification (IGES), AutoCAD Corp.'s Data Exchange Format (DXF), MacDraw 11 software and PICT formats, will accelerate the success of Claris CAD and Macintosh integrating into CAD environments.

With Claris Graphics Translators users can transfer documents originally created in AutoCAD, VersaCAD, CADAM, Computervision, Intergraph or other computer aided design programmes that support either DXF or IGES formats, directly to Claris CAD and vice versa. Although the primary

market for Claris Graphics Translator will be users of Claris CAD, users of MacDraw 11 and other Macintosh graphics software programmes can also purchase and use the translators.

"Claris Graphics Translator allows users to integrate Claris CAD into virtually any CAD environment," said Steve Johnson, UK managing director. "Not only do the translators protect previous investments in CAD drawings and future investments in Claris CAD documents, but also enable users to integrate their 2D work from Claris CAD with 3D design, modelling and analysis software, and share their designs among users with different 2D CAD programmes."

Claris Graphics Translator includes productivity enhancing features such as interactive preview and geometry inspections, translation of selected geometry, multiple file translation and automatic translation report generation. Claris Graphics Translator will operate under Macintosh system software 6.0 or later and on all Mac SE or Mac 11 family computers.

The Claris Graphics Translator package supports files in IGES v3.0 or v4.0, DXF release 9 or 10, Claris CAD, MacDraw 11 and PICT formats. The programme has a suggested retail price of £225 (+VAT) and is available from authorised Claris dealers or Frontline Distribution.

Claris will begin shipping **SmartForm Designer 1.1** and **SmartForm Assistant 1.1**, updates to its electronic forms processing products for Apple Macintosh personal computer users, beginning in early September. The updated versions feature higher performance, improved forms management capabilities and stronger integration with databases, spreadsheets and other ap-



plications.

The updates to the SmartForm Series demonstrate Claris' goal to simplify forms management and information flow for forms-intensive environments.

"Forms play a crucial and fundamental role in almost every kind of business transaction, and the SmartForm Series has helped to revolutionise the way forms are designed and completed," said Steve

Johnson, UK managing director. "The 1.1 versions of SmartForm Designer and SmartForm Assistant demonstrate our progress toward integrating forms management with all other aspects of business so users can intuitively and simply manage their information flow."

SmartForm Designer is a programme for designing professional-quality forms using a Macintosh computer, and SmartForm Assistant is a companion product for electronically filling out forms created with SmartForm Designer.

SmartForm Assistant 1.1 includes a number of new features that make it a more powerful forms completion tool. For example, users can manage their electronic forms more easily by grouping "similar forms" into a single file, creating "form sets." Users can then perform database-like searches within a form set, such as "find all the forms completed between 1 January and 31 January," or "find all the expense reports filed in the last three months that exceed £100."

In addition, users can export entire form sets to standard formats such as SYLK, DIF, DBF and WKS to share form data with database or spreadsheet applications, including FileMaker 11, Microsoft Excel, Lotus 1-2-3 or dBase.

Another SmartForm Assistant 1.1 feature, called "collect," streamlines the process of importing information from existing forms into a single SmartForm form set. "Collect" eliminates many export-then-import steps traditionally necessary to collect information from multiple sources.

This feature will find particular



favour with users who regularly gather information such as expense reports, time sheets or sales forecasts from many people. In addition, "collect" performs the data transfer automatically, so users do not have to specify field names or file formats.

SmartForm Designer 1.1 offers users greater variety and flexibility in the forms that they design, primarily through support of Encapsulated Postscript (EPS), the Postscript Interchange standard.

Users can add sophisticated drawing effects — such as free-hand illustrations and logos, graduated screens or text on an arc — imported from Postscript-based drawing programmes such as Aldus Freehand and Adobe Illustrator. These drawing effects can appear either on printed forms, or on electronic forms to be completed using SmartForm Assistant 1.1.

Users can also designate entry fields in an electronic form to be filled with pictures, instead of words or numbers. In this case, EPS- or PICT-based graphic disk files are entered directly into the picture fields using SmartForm Assistant 1.1. SmartForm Designer 1.1 also recognises additional date formats, such as dd/mm/yy and Julian calendar dates, for more flexible reformatting of date fields in forms completed with SmartForm Assistant 1.1.

SmartForm Designer 1.1 and SmartForm Assistant 1.1 are available from authorised Claris dealers or Frontline Distribution. The suggested retail price of SmartForm Designer 1.1 is unchanged at £295 (+VAT), which includes a single-use copy of

SmartForm Assistant 1.1. Additional copies of SmartForm Assistant 1.1 can be purchased for £35 (+VAT) each or £299 (+VAT) per 1 O-pack.

QuarkStyle™

QuarkStyle is a derivative of Quark XPress which is designed to provide instant publishing capabilities. QuarkStyle contains designer created templates to enable the less experienced desktop publisher to produce better quality documents.

It combines a powerful word processor with handy page layout capabilities and over 75 templates, which range from letterheadings to memos and newsletters. The templates will give documents a professional and consistent look. QuarkStyle is completely compatible with Quark XPress.

FileGuard™

FileGuard is a programme which is especially for those who are concerned at the security and integrity of the data stored on their Macintosh. FileGuard has three protection features: encryption, introduction of an access key when the system is started, and the locking of the disk driver.

FileGuard encrypts files, so that even if they are copied, they are of no use without the key which you have chosen. Once installed on the system, you no longer need to worry about protecting your documents, the protection works from within the application you are using.

This program is probably of more interest to business users than to anyone else.

Publish It!

We take a look at the latest Desk Top Publishing program to appear on the already crowded scene

The Desk Top publishing revolution started with the introduction of Aldus PageMaker on the Macintosh. Some few years later, there is now such a plethora of applications that can assemble text and graphics into the multiple pages necessary in the production of a magazine or book, that it is difficult to know quite which one to get. To confuse the issue further, word processors have now expanded to allow column layout and word wrap round inserted pictures.

The original PageMaker has gone through several revisions, and Xpress, Ready Steady Go and RagTime have appeared as

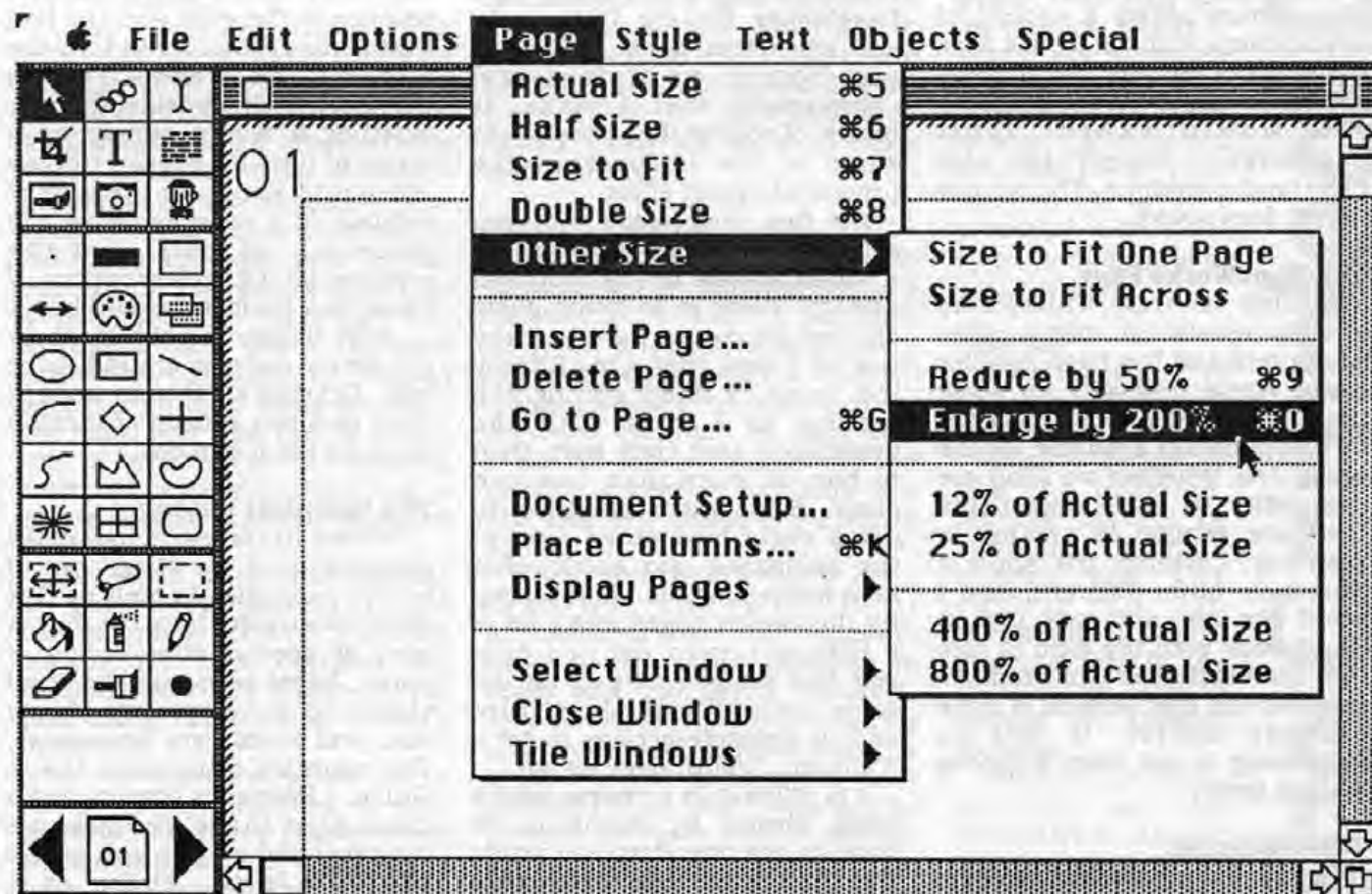
serious rivals. Publish It! promises all this and more. But does it deliver its promise?

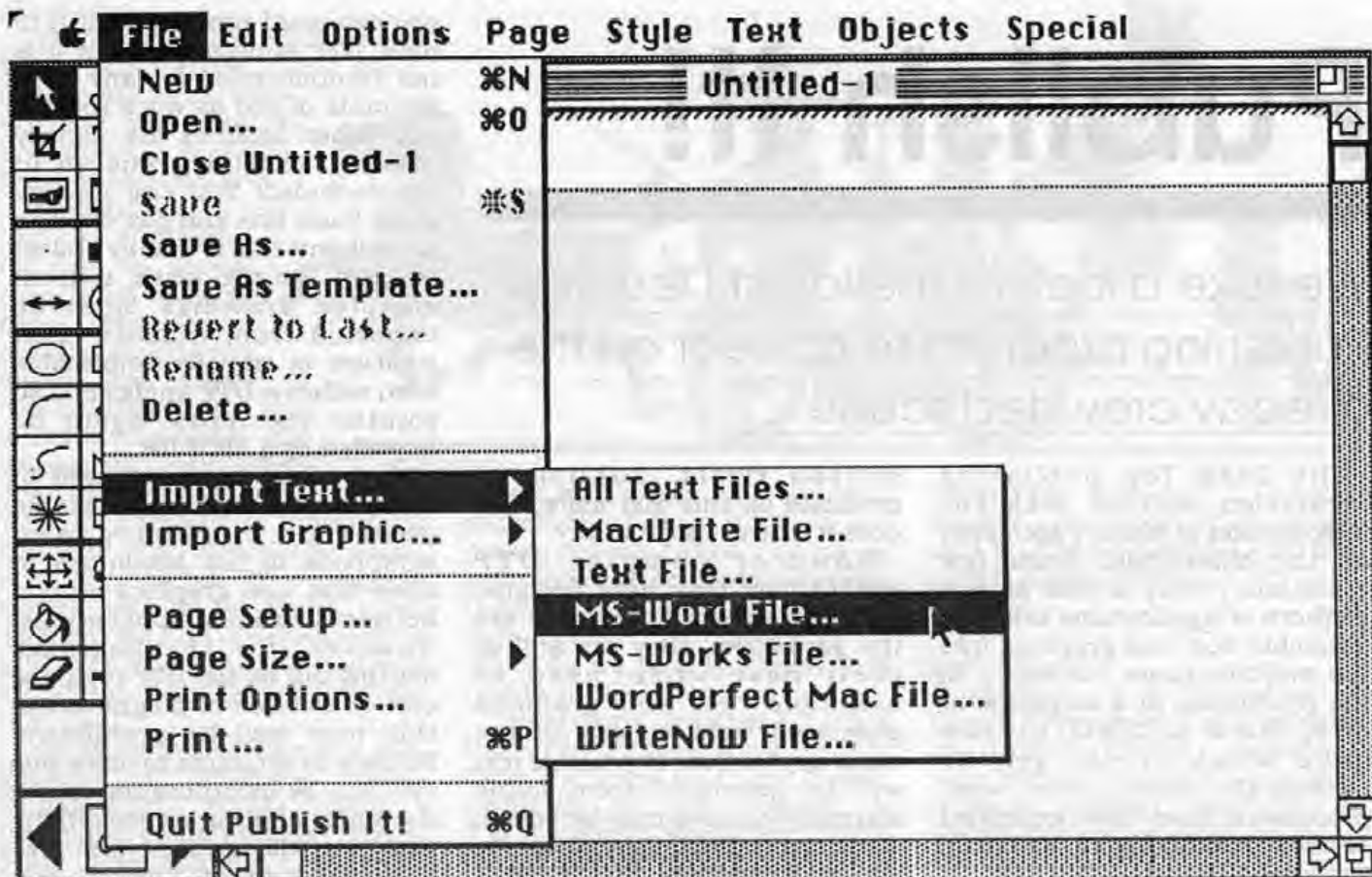
However complex DTP applications may have become, and Xpress and PageMaker are the yardsticks, they are still at their best when used to assemble text and graphics generated from outside of the main application. In practise text will be generated from many sources. Pictures may be scans, drawings or PICT files. Normally you will therefore also need a word processor, a paint application and a drawing application in addition to your DTP application. It is true that

you can word process directly in most DTP applications, but it is not recommended for any large amounts of text as word spelling and other facilities are usually missing, something Publish It! has included! You can also do some basic line and box drawing as well, but this is mainly limited to very simple work indeed, complex drawings must be imported from outside. Text rotation is usually impossible from within a DTP application so rotated text must again be imported as a PICT file.

Most of us have got used to these limitations, and use the powerful clipboard and scrapbook of the Macintosh to move text and graphics around between various applications. However, for the beginner starting out on the DTP road, the cost of a clutch of programs like this may well be prohibitive. Publish It! attempts to solve this problem by incorporating within the main application everything that you will need! At just over half the cost of Xpress, and bearing in mind everything it claims to do, it has to be taken seriously indeed.

It is not a program for the





dedicated and serious typographer. It just is not in the same league as the big boys. But for the beginner on a slim budget who cannot afford a spread of applications, Publish It! will save hundreds of pounds and give you access to many of the features you would expect from PageMaker, SuperPaint and FreeHand combined. The crux is that it does work!

The TimeWorks Saga

Publish It! from TimeWorks already exists on many other computers and has been familiar to the Apple fraternity for some time now as the most powerful DTP application available for the Apple //e. Whether we shall see the ability to move documents from one version to another is not clear. Certainly the Apple II version is quite different, and I could not see any way that it could work with the kind of files that the Macintosh can produce. However the IBM version is quite another matter. It will be interesting to see what happens on that front.

The Challenge

To give myself a real challenge,

and to really test the application out fully, I used it to produce and print the four pages making up this review. I normally use PageMaker for my DTP work, and when that is not sufficient, use Xpress, so it is a real comparison that I make. It meant of course that I could use some of the features in the program to great effect.

The first impression that you get when running Publish It! on a small screen is the cluttered display. There is so much going on, and the menus have so many pop up boxes, that it is all really too much. I keep getting the feeling as I work with the application that they have tried to bite off more than they can chew. Some more attention to detail might have cured some of the anomalies and quirks that kept bedevilling me. Just setting up the master pages was a bit of a trial as I could not find page size and margin settings on the same menu! It took about three or four separate actions to get a 3 column default page set up.

It is difficult in a review, which must always by definition be done in less time than you would like, to not list the things that

either do not work, or are not as good as you would like. All applications can be criticised in this way however. It is the balance of the good and the bad that matter. Whether in total the application works and is therefore worth consideration, or whether it would simply be a waste of time for anyone to even attempt to use it. In the case of Publish It! I must consider the price tag as well, and the promise of all its many options. If I was on a budget, I would buy it ... with money no object, there are better options around to be had. Bearing all this in mind, I shall give you a taste of Publish It! and what it can do.

The compleat package!

Publish It! comes on four disks accompanied by three spiral bound manuals. As well as this there is stuffed into the box a host of special offers, slips of paper, latest revisions etc. It all slots into a heavy duty library box, and looks very impressive. The manuals comprise a User's Guide, a Reference Manual and a Quick Start Guide. The disks are not protected and as well as the program disk, there is a

dictionary/thesaurus disk, a quick-start mini-manual with artwork and a sample layout disk.

To install Publish It! it is simply a matter of creating a sub-directory and dragging the files over onto your hard disk to get the thing up and running.

I have shown some sample screens to give you a flavour of the menus (before anyone asks how I managed to capture screens with pull-down menus, let me say I cheated and used Timbuktu to control Publish It! remotely, and then made standard Command-Shift 3 screen dumps). These screens show how many

options are available. I am dubious that you would ever use them all, but it is nice to know they are there.

There are a few things that simply do not normally exist on standard DTP packages. Vertical justification for instance, and shaped text blocks. However, the main difference from standard packages is the inclusion of a spell checker, thesaurus and a full paint package. Most of the commands you would expect on a program like MacPaint are available. Any paint features applied to the page, are placed within a bit-map frame in much the same way that text is placed into a text frame. There are a selection of tools to allow you to create custom boxes for graphics or text.

The object orientated drawing is also very powerful and includes many tools not normally seen in DTP. Line control is very flexible, with the shape of the pen being controllable in both directions.

The flexibility allowed in manipulating graphics is very powerful. Imported graphics can be cropped, moved, scaled and have their excess white space be

stripped automatically as well. If two graphics overlap, the frame overlap tool allows you to control how the two will interact. This means you can have transparent or opaque overlaps as well as the more unusual EOR and XOR interaction.

Text wrap round pictures is



fairly comprehensive but only within a fixed offset. This does not give the precise fitting of PageMaker for instance, but at least it is automatic. Comprehensive aligning of selected items is also available. The main limitation I found with the graphics was that only eight colours could be specified. There is not

access to the colour wheel or any other way of adjusting colour. In practise this is not too much of a limitation if you limit yourself to spot colours, but you have to remember what colours you have actually used. The screen will not be WYSIWYG, and imported colour scans will show as black and white only.

Column Control

Columns can be created not only vertically, but horizontally as well, and a text box can itself be given columns, allowing very complex arrangements indeed. Columns once created can be adjusted manually in size. Text of course can be linked from one column to another by means of a link tool very similar to the one in Xpress.

Once text boxes have been created, the wealth of adjustments to line spaces, indents and other facilities is really just too much. However, very powerful automatic kerning and horizontal dimensioning is available, and perhaps the most powerful of all, text boxes can be rotated. However, you do not see the actual text rotated on screen, only an outline, but it is rotated

on the print. The rotation is controllable either by fixed settings or by typing in the degrees required! The horizontal dimensioning ranges from 20% to 800%, an enormous range indeed.

Viewing Pages

It is possible to open multiple documents, something Xpress also allows and PageMaker does not. The various ways you can display the page are also too numerous to mention, but viewing can be seen up to 800%. Perhaps the nicest option is the ability to fit to page which will show thumbnails if they have been selected. However, the rulers are clumsy as there are no pull down guides, only a single guide that can be moved as needed. There are movable rulers though. You will now begin to see why I feel alternatively that Publish It! is very powerful and then very confusing and over the top!

Dislikes

Now for some of the things I did not like.

When I began to use the program. Moving objects or text boxes only shows you the outline till you release the button. I suppose this is the trade off we have to accept for greater features.

Publish It! does not use all the standard Apple commands and so key presses you are

The Compleat Desktop Publish It!

so used to giving, just do not do what is expected (are they in league with Microsoft?).

When I copied a text box to the clipboard, the first time I pasted it came back fine, the second time it had changed size and gathered a visible line round it.

Having told Publish It! I was using centimetres (no millimetres!), it would not let me put a measurement without a 'c' after it. Very clumsy that and after I had said what measurement I was using as well.

Text editing is very fast, much faster in redrawing than PageMaker, and you seem to lose no text by typing ahead. However, the cursor does odd things when you least expect it. The up and down arrow keys move you to the beginning or end of a paragraph and not line by line. It is also difficult to hit the right line as you are editing, an odd feeling.

Text scrolling seems to jump an odd amount, never quite what you are going to expect.

When you switch pages, it does not remember the size you last viewed the new page. This is very frustrating and slows you down considerably.

Flipping Boxes

At the right of this page are a few of the ways that a text box can be turned, flipped and rotated. The ability to actually turn text is very useful indeed. The usual way for me to do this is to go into FreeHand and generate it there.

These boxes were generated from a single master at the top right. This was copied on to the clipboard and pasted back. An annoying feature of Publish It! is that text boxes always seem to be created with a line round them. It gets tedious removing this. I did not explore fully the defaults available, and it may well be that this could be changed and saved to disk so it became the new default.

Word Processing

It is not usual to get powerful word processing features within a DTP package, but Publish It! has it all! Spell checking as you type, comprehensive checking facilities, and a Thesaurus are all

available to order. As I have mentioned text entry seems to lose nothing in speed or dropped characters as you type ahead, and combined with very fast text scrolling, it is almost as good as a stand alone word processor.

Final Thoughts

Finally, there is a very comprehensive Help system available online. We are becoming used to this these days, but it is nice to know they did not leave it out.

All in all so many features packed into the program it would take many pages to list or describe them all. Certainly everything you could wish for!

Conclusion

This has been a flavour of Publish It!. As I mentioned at the beginning, it is not possible to thoroughly work out all the features in such a review. I must repeat that this is not a program for the serious typographer to consider even though at first sight the features are extremely impressive. It is however a very useful and powerful program for the beginner to the world of DTP. It will do all that one would wish of it at that level, and probably much more than ever would be expected. Its quirks are livable with once you have got used to them, and don't forget that Xpress and PageMaker have their quirks as well.

Taken as a whole, I would seriously consider this as a complete package suitable for the beginner or small publisher.

Ewen Wannop

info

Product: Publish It!
Publisher: TimeWorks
Available from:
MGA Softcat
41 Cinque Port Street
RYE
E Sussex TN31 7AD
(0797) 226601
Price: £395 inc VAT P&P

Value: ★★★★★
Performance: ★★★★★
Documentation: ★★★★★

The control of text boxes is very powerful. They can be rotated, flipped, and generally displayed in ways one would not normally think of. Whether these features are your bag or not, is up to you. The array of features is certainly mind boggling!

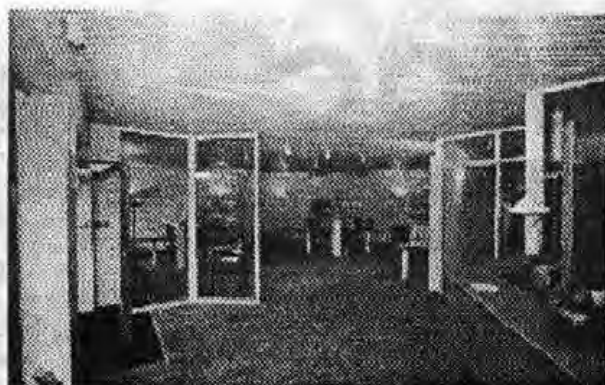
The control of text boxes is very powerful. They can be rotated, flipped, and generally displayed in ways one would not normally think of. Whether these features are your bag or not, is up to you.

The control of text boxes is very powerful. They can be rotated, flipped, and generally displayed in ways one would not normally think of. Whether these features are your bag or not, is up to you.

The control of text boxes is very powerful. They can be rotated, flipped, and generally displayed in ways one would not normally think of. Whether these features are your bag or not, is up to you. The array of features is certainly mind boggling!

The control of text boxes is very powerful. They can be rotated, flipped, and generally displayed in ways one would not normally think of. Whether these features are your bag or not, is up to you. The array of features is certainly mind boggling!

Whether these features are your bag or not, is up to you. The



Friendly Solutions at your AppleCentreSM

Celtip Computers has been in operation for almost ten years and in that time has built up an enviable reputation as the AppleTM MacintoshTM dealer in Worcestershire.

The Macintosh's legendary system of easily understood words and pictures simplifies its operation and with the full backing of Celtip's sales, support, and training facilities you can be sure of an efficient friendly solution. Come in for a demonstration today.

Celtip Computers : AppleCentreSM Kidderminster

Lower Mill Street, Kidderminster, Worcs, DY10 2JG. Tel : 0562 822222

Apple, the Apple logo, and Macintosh are trademarks of Apple Computer Inc. AppleCentre is a service mark of Apple Computers Inc.

Z88-to-Mac

A review by Norah Arnold of the transfer link between the Z88 and the Macintosh



Z88-to-Mac

The Cambridge Computer Z88 weighs less than two pounds and is 11.5 x 8.25 inches while being less than one inch thick. This means that it really is portable for someone who does not wish to carry a heavy weight around. It

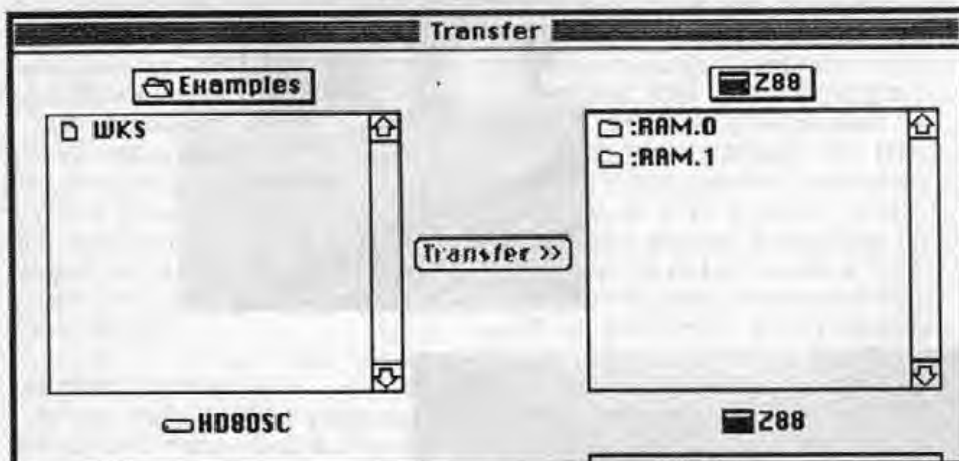
turbing others with the noise of the keyboard as you can very easily disable the keyboard sound and type with no noise at all. I found that even in a dimly lit hotel bedroom the screen was still able to be read easily, something

processor without running out of memory. When I got back home it was extremely easy to fit the cable between the Macintosh IIx and the Z88 and run the MacLink transfer program on the Z88 and the Z88-to-Mac software on the Mac IIx. Once the transfer screen appeared it was child's play to pick out the files you wish to transfer.

Another good feature was that the formulae are also transferred when sending spreadsheet data between, for example, Excel and the Z88. It is just as easy to transfer the spreadsheets as it is to transfer text between PipeDream on the Z88 and MacWrite.

The Z88-to-Mac package contains the Z88-to-Mac program, a user guide, a serial cable for linking the Z88 to a Macintosh Plus, Mac SE or Mac II, and a Z88 Link ROM Card which contains the transfer program for running on the Z88 itself.

For someone who wants a cheap portable and transfer facilities to the Mac, the Z88 is a good buy.

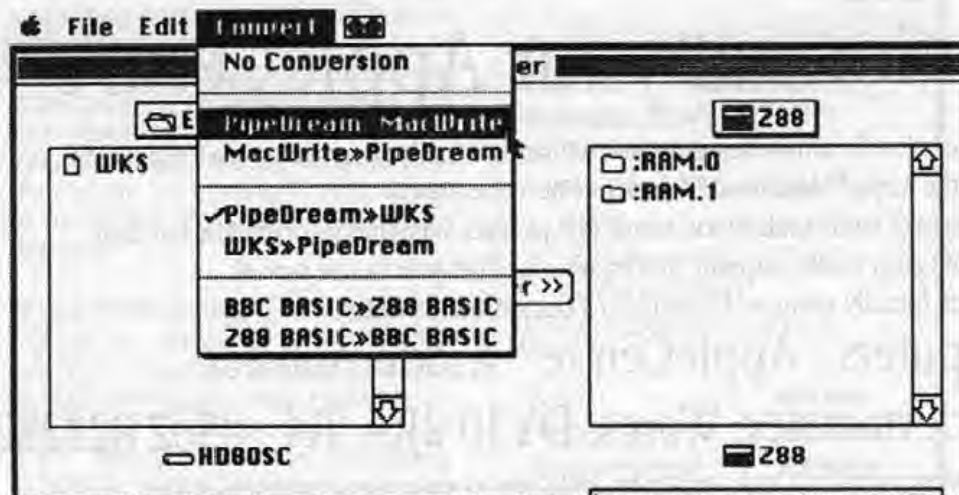


fits very easily into a briefcase and has travelled with me to conferences in a sports bag.

I found it very useful to be able to type a report at the end of a day's work at a conference while the material was still fresh in the mind. There was no fear of dis-

which really did surprise me because the screen is only 8 lines x 80 characters.

I was using the machine fitted with an 128K RAM pack and I found that I was able to type sufficient pages of my reports into PipeDream, the resident word



info

Product : Z88-to-Mac
For more information and the name of your nearest stockist contact:

Cambridge Computer
Bridge House
Bridge St
Cambridge CB2 1UE
Tel: (0223) 312216

Value : ★★★★★
Performance : ★★★★★
Documentation : ★★★★★

Apple2000 at the BETT Show



Reports from two committee members who "manned" the User Group section of the Apple (UK) stand

EWEN WANNOP - Chairman

It is not very often that Apple Computer (UK) Ltd are to be seen at computer exhibitions these days. Admittedly, there are rather a lot of these things spread around, and it would be impossible for Apple to attend them all. It was with great interest, therefore, that I heard that Apple have always attended the BETT (British Education and Training Technology) Show at the Barbican in London. Although I am in



Chairman, Ewen Wannop

more schools than colleges,



Visitors crowded round the stand

education myself, I had never attended this show as I thought that it was just for school teachers! The trigger that got me there this time around was that Apple had asked us if we would, as a User Group, act as one of the Information Providers in the Apple village.

The BETT show is, in fact, aimed at all of those who work in education — at whatever level that may be. As there are

indeed, much bigger than I was expecting, and it filled both the Red and Blue Halls at the Barbican Exhibition Centre. This is a much closer and friendlier environment than the usual vast and echoing exhibition halls and so I did not have to raise my voice to be heard over the din of the

other stands as is usual.

The Apple village was spread over two large stands and consisted of over thirty separate displays. Each display was "manned" by representatives from a third-party developer of products linked to the Macintosh. As Apple2000, we were representing the User Groups,

and we provided information and help on all things related to Apple computers. It was pleasing for me, therefore, to have both Macintosh and Apple II questions to field! Apple provided us handsomely with an SE/30 and a Mac Portable to grace the stand. The Mac Portable was the real hit as far as we were concerned, and attracted many people of all persuasions. The SE/30 was hooked



Ewen and Irene helping the visitors



Irene and Norah manning the stand

up to a CD-ROM running the BMUG ROM, and there was a large sign above us, advertising that we were giving away PD software to those who brought their own disks!

Claris predictably took up the largest area of the main stand, but there were also many smaller displays showing such diverse applications as interactive video, robot interfaces, music synthesizers, emulation of BBC computers, Intergraph MicroStation CAD and much, much more.

What struck me most was the interest shown by everyone in the Apple computers. Many colleges I know are using Macintoshes, but it was surprising to me how many schools also have the things these days. Of those who were not yet using them, almost all said that they wished they could use one instead of the assorted Nimbii, Arc's and other blue tinged machines that proliferate these days.

Of course, as we were representing Apple2000, we were

the Macintosh community. It was surprising how many teachers had not heard of the Group or even knew what a User Group is! Many who stayed and talked to us have promised that they will join up without delay. All in all, a very successful event and well worth attending.

I bring back many memories from BETT 1990. There was the Apple stand in its cool white livery, being the most impressive by far. With all the fancy screens and displays of the Commodore and Acorn stands, they did not seem nearly so friendly as the open architecture of the Apple interface! There were the enterprising people who took a double stand and set up a wine bar serving delicious

cool wine and salads piled as high as you could manage on the plate. There was the look of desperation on the face of the chap who tried to drag the whole CD-ROM icon onto a floppy disk, only to be told that he needed another 300,000,000 bytes or so to copy all the files he had

not only providing an information service, as the Show gave us a chance to spread the 'Apple2000' gospel to a whole new and untapped section of

selected! There was the frustration of all the others who just simply did not know which of the thousands of files to copy on to the single disk they had brought with them!

The BETT show was an enjoyable experience. Next year I shall be back

IRENE FLAXMAN - Treasurer

I was rather surprised, when we were approached by Apple (UK) to "man" a part of their stand at the BETT Show. After all, our relationships with them have been somewhat varied in the past, and we have often criticised them (constructively, of course). We have enjoyed their help at times,



A view of the Apple stand

e.g. by providing technical information and by advertising with us. At other times, we have come across the "stone wall" syndrome, and have felt really isolated. This has generally been attributed to internal organisational changes, but it has left us somewhat bereft of essential information at times.

When Derek Baker joined Apple (UK), it was with the stated intention that they would improve relationships with the User Groups and we sincerely hope that this will be the case. We are determined to retain our independence, and we shall still criticise the Company if we feel that it is warranted, but we look forward to a new era of co-operation and



Norah and Irene debating with a visitor



Ewen, Norah and Irene — all sporting the Group's Sweatshirts

sharing of information.

We were delighted, therefore, when Derek invited us to join them on the Apple stand at the BETT Show — seeing this as an indication of the closer liaison with Apple (UK) which we hope to enjoy in the future.

My impressions of the BETT Show differ from Ewen's, because I am not involved with education. I was unaware that such a Show existed, until we were approached by Apple UK.

This was my first visit to the Barbican, too, so I didn't really know what to expect.

I was surprised by the size of the exhibition, and also by the general atmosphere. It was much larger, and much friendlier, than I had expected.

The four days passed quickly, but they were tiring for someone who is used to sitting at a desk all day as I am (what a way to spend our holidays!). However, we met many potential new members, which made it all worthwhile. We were also surprised by the number of Apple users in education — although many oth-

ers could only express their desire for the Mac, as being a computer which they all regard as being the ideal tool

to achieve their various goals. An unexpected bonus was the portable Macintosh which

was placed in our care — this gave us an ideal opportunity to try out the new machine. It certainly generated a great deal of interest and many questions, so we had to learn about it — fast!

The variety of questions levelled at us was also surprising. Some visitors simply wanted to take advantage of the free PD software, but many took the opportunity to ask us for technical assistance — relating to all types of Apple — including II's, IIs and the Macintosh series. Needless to say, everyone on the Apple stand automatically channelled any Apple II queries to us, but we also had our fair share of Macintosh queries to answer.

I was really taken aback when H.R.H. Prince Michael of Kent decided to make an unscheduled stop at our stand, to talk with me. He seemed to be really interested in the aims and objectives of the true User Groups, particularly as they are non-profit making organisations (i.e. operated by

real enthusiasts for no financial gain!). He seemed to be impressed by the quality of our magazine, too — after all, it is a prime example of the results which can be achieved without any training but with the aid of the Mac.

I was exhausted after the four days on my feet, but I thoroughly enjoyed the Show, and I hope that our presence there will lead to many new members.

I hope that Apple will invite us back, next year.



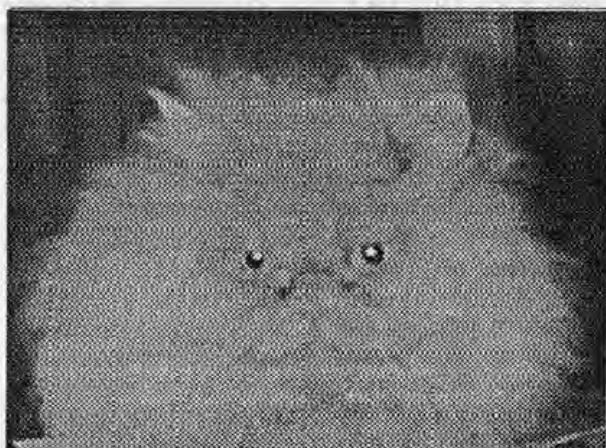
HRH Prince Michael of Kent makes an unscheduled stop

Photographs

The photographs on these pages were taken with the new Canon ION still-video camera.

The images were imported into the Macintosh via the Neotech Image Grabber, saved as TIFF files for placing into the PageMaker file, then printed on the LaserWriter at 300 dpi.

The Image Grabber was loaned to us by Computers Unlimited. Look out for a full review of this great new technology in a future issue.



What did you say about a mouse?



Being "MultiFinder Aware"

Making your programs "MultiFinder Friendly" (part 1) by Rick Thomas

This is the first part of a two-part article. The second part will be printed in the April issue.

MultiFinder is Apple's newest System Software wrinkle for the Macintosh. The major new functionality available under MultiFinder is the ability to run multiple applications at once, all of them sharing the same screen or display world. MultiFinder thus provides the closest thing to multitasking available yet on the Mac, except perhaps for A/UX (Apple's own UNIX for the Mac) which is just getting off the ground. Apple seems to have done a great job in introducing this new functionality without greatly altering either the familiar Macintosh environment for the user nor the programming model for the developer. Indeed, many applications run correctly under MultiFinder, but many do not. Moreover, as of this writing only a few applications take full advantage of MultiFinder's background support and are fully "MultiFinder Aware".

If an application's developer has been good and followed the rules laid down at various times and in various fashions by Apple, chances are that the application will run correctly under MultiFinder and that it may be modified relatively easily to take full advantage of MultiFinder. The most common features an application developer may want to utilize include proper window display when suspended, background processing, temporary memory allocation, and new goodies such as the Notification Manager. The Notification Manager will be discussed briefly at the end of this article, being relatively new. Temporary memory allocation has not been utilized by this author, and so it will be mentioned only in passing. However, the first two items mentioned, which are in themselves "noble aspirations", are relatively easy to accomplish, and should be considered minimum requirements for "MultiFinder Awareness". If an application is already "MultiFinder Friendly,"

But sometimes a programmer will take an undocumented and/or unapproved shortcut. Some examples of these include fussing with various low memory variables, using CopyBits to save and restore a portion of the screen while a dialog or alert is up, drawing directly to the screen rather than in windows or other grafports, messing too much with the trap table, changing status bits in memory blocks without using the proper Memory Manager calls, and assuming the size and location of the application and system heaps. Now, if you've done

some of these so-called "bad things", you may still be ok. In fact, if your application is already compatible with Switcher (which is no longer supported by Apple), it is probably reasonably MultiFinder friendly, since the application environment differences between Switcher and MultiFinder are minimal.

Some General Rules of the Game

First, let's discuss some of the do's and don'ts of being "MultiFinder friendly". Then, I'll describe some of the new things (WaitNextEvent, temporary memory allocation, and the new version of the SIZE -1 resource), after which I'll present some of the techniques I used in Pro-Cite as an example of how one might provide some level of "MultiFinder Awareness". The rules fall into one of four categories: General/Global (pun intended), Window Manager, Event Manager, and Memory Manager. I will not present an exhaustive list, but just hit the big ones. For a complete set of guidelines, you may want to acquire the MultiFinder Development Package from Apple.

General/Global Rules

- Don't access low memory more than you have to. Things which are clearly documented in *Inside Macintosh* or in Technical Notes are probably ok, but Apple could decide to change them in the future, too!
- Don't change the Apple menu except through the proper ToolBox calls. MultiFinder basically feels it owns the Apple menu and could get nasty if you change it directly rather than using more "normal" methods.
- I've always felt that patching traps was an ignoble thing, but maybe that's just due to my own limited experience! Anyway, if you're going to engage in this activity, use the SetTrapAddress calls rather than writing into the dispatch table in low memory and place your patch receiving routines in your application heap, not in the System heap. You'll be glad you did. Also, remember to unplug all your patched traps before exiting your application. In case you're not running under MultiFinder, MultiFinder keeps a separate trap table for each application and switches the patches for you, so it really shouldn't be necessary to unplug your patches on suspend events.
- Don't access your global data from within an interrupt handler, a patch receiving routine, an I/O completion routine, or a VBL task. It isn't even safe to presume that the value in CURRENTA5 is correct!

Instead, save a copy of your A5 in some data structure you're sure you can find (such as a parameter block that's passed in) when your routine is called. See Technical Note #180 for an example of how to do this best.

- Use the Scrap Manager to access the scrap, rather than manipulating either the low memory scrap data or the Clipboard file itself directly.
- Don't assume that at exit time (when you call `ExitToShell`, or otherwise fall off the end of your program) anything goes. Don't clear the screen with a second call to `InitWindows` or with `PaintRgn`. Don't blow away system data structures like the `WindowList` before exiting.

Window Manager Rules

- Don't modify certain Window Manager data structures (such as the `visRgn`, `updateRgn` and other Window Manager-owned fields, plus any low memory goodies) directly, rather use the proper Window Manager Toolbox calls. You can do whatever you want to with off-screen `GrafPorts`.
- Do all drawing to the screen within the bounds of a window your application has created with appropriate Toolbox (`QuickDraw`) calls. But you can do whatever you want with `GrafPorts` for off-screen drawing. Most game programs are notorious for not doing this (Try *Crystal Quest*, V. 2.00, under MultiFinder... first click, and you're switched out with only "some" of the Finder display surviving!).
- Don't bypass the proper techniques for updating windows obscured by a dialog or alert after it's dismissed. Some applications use `CopyBits` to do this, but under MultiFinder they might just end up putting back "old" bits from the Finder display or from another running application.
- Consider the Window Manager port to be off-limits, or at least read-only. Don't draw on the desktop (at least, not in a destructive manner... zoom effect lines and such seem to be ok, for now). See Technical Note 194, "WMgrPortability" for the gospel on this.

Event Manager Rules (it certainly does!)

- The most important thing to do is handle update events correctly. When an application is running in the background (or at least switched out/suspended: even those applications which do not support background processing will often find themselves in this state), it will receive update events whenever the foreground application has obscured and then exposed one of its windows. Applications should not implement deferred window updating schemes but should respond (in other words, `DRAW`) directly upon receiving an update event.
- Null events are used by MultiFinder to provide time for background applications (assuming the `canBackground` bit is set in the `SIZE` resource.) Hence, time consuming activities such as garbage collection should not be performed on every null event received. Use `TickCount` to arbitrate use of null events, except for cursor tracking.
- Don't call `SystemTask` on every (null) event, but rather call `WaitNextEvent`, which handles functions previously supported by `SystemTask`. Do continue to call `SystemTask` and `GetNextEvent` for non-MultiFinder situations. See the Pro-Cite code examples.
- Support suspend/resume events. They can elimi-

nate most of the time required for a switch, since MultiFinder performs the same desk accessory charade that Switcher did. If the application doesn't indicate (via the `SIZE` resource) that it supports suspend/resume events. Besides, supporting these events is the only way you can keep track of whether or not your application is suspended (and you *will* want to do that!)

Memory Manager Rules

- Don't make assumptions regarding application or system heap size or location. In fact, your application should be written so that it doesn't care where the heap is or what size it is (except when it runs out of memory, of course!). Use `GetApplLimit` to get at the maximum size of your heap and use `SetApplLimit` to resize your stack.
- Allocate additional heaps within your original heap as non-relocatable blocks or else within your stack. Consider your application's available memory to be the application heap and stack *only*.
- Don't assume into which heap a particular resource is loaded, unless it is a resource you loaded from a file you opened directly. MultiFinder dynamically loads resources from the System file and from printer resource files into structures that it maintains in the system heap.
- Try to use MultiFinder's temporary block allocation calls for unusual needs such as copy buffers, and thus keep the normal memory requirements of your application smaller.
- Support the size (`SIZE -1`) resource to describe your application's memory requirements and capabilities to MultiFinder. The minimum size should be sufficient for the application to perform some useful work while the maximum size should be no larger than that which the application uses when exercised under normal circumstances. Let the user set the size larger if needed. A preferred size of 2 megabytes is probably excessive. Maybe the `FullWrite` programmers would disagree...

New Wrinkles from MultiFinder

MultiFinder introduces some new system functionality in the form of background processing and temporary memory allocation and enhances existing functionality with the `WaitNextEvent` Toolbox call. This section is also a good time to cover the new version of the `SIZE -1` resource.

WaitNextEvent

By far the most important change, and the focus of providing real MultiFinder support in an application, is the `WaitNextEvent` trap. An application can perform properly under MultiFinder by just continuing to use `GetNextEvent`, but true background task support can only really be achieved with `WaitNextEvent`. The prototype for this trap is

```
FUNCTION WaitNextEvent(VAR theEvent :  
EventRecord;  
theMask : EventMask;  
YieldTime : INTEGER;  
MouseRgn : RgnHandle) : BOOLEAN; INLINE  
$A860;
```

The first two parameters (the event record and event

mask) are identical to those in the familiar GetNextEvent call. The YieldTime parameter (also called the "sleep" parameter) indicates how much time to "give up" to any background applications. It may be thought of as how many ticks for the Event Manager to "go away and visit other applications" before returning a null event to allow this application to do garbage collection type activities or possibly background processing. A value of zero will cause the Event Manager to "return" immediately after still providing some minimal time to any other processes currently active; this is essentially equivalent to the GetNextEvent case. When the time specified by YieldTime elapses, WaitNextEvent returns a null event and a return value of FALSE. If a "real" event (e.g., update event if in the background or anything else including an update event if foreground) occurs before the YieldTime value elapses, WaitNextEvent returns the event immediately, along with a return value of TRUE.

The last parameter, MouseRgn, is a handle to a region that describes the area in which the cursor may maintain its current setting, as desired by the application. If this parameter is not NIL, MultiFinder will generate a special type of an event, called a "mouse-moved" event, whenever the cursor has been moved outside of the given region. The application may then change the cursor and generate a new MouseRgn to pass to WaitNextEvent. I found that some of the regions I needed to describe were rather complex and thus I passed NIL for the MouseRgn parameter. This meant that no mouse-moved events would be generated. While the purpose of the mouse-moved events is to improve performance by allowing a larger value of yieldTime for background applications, I found that Pro-Cite's cursor-tracking routine was simple enough that it could be executed on each event provided by MultiFinder (except when suspended, of course) and still provide adequate performance to other processes.

Background Processing

MultiFinder allows for a new class of applications called background tasks. A background task is an otherwise normal program that can use null event processing time to perform useful activity, for example sorting a database or recalculating a spreadsheet. There are even "background only" applications (such as the Backgrounder, which provides background LaserWriter printing in System 6.0 and later) which have no real user interface but exist only to perform some regular task "behind the scenes." To truly understand how this might work, we must digress and discuss the MultiFinder programming model in a little more detail.

Without MultiFinder, most applications spend much of their time receiving null events, "waiting for something to happen." Under MultiFinder, only the currently running (foreground) application receives all user events. When the foreground application calls GetNextEvent or (more preferably) WaitNextEvent, it can be switched out "temporarily" to provide time for other running applications or "permanently" (well, suspended) when the user wants to switch to another application, as indicated by clicking on another application's window or via the menu bar or Apple menu.

Be aware that there are two exceptions to "permanent" switching (i.e. suspension):

1. If an application has put up a modal dialog window (dBoxproc), it will NOT be suspended, although it can be temporarily switched out to provide time for background applications, and
2. An application will not be switched out even "temporarily" (i.e., to give time to background tasks) if the file system is busy, for example, in the case of pending asynchronous file system requests.

Device manager calls do *not* delay task switching, however. Task switching with regard to the file manager and device manager is subject to future change.

Applications that are running in the background will not receive user events, but only update events as they become necessary when foreground activity uncovers portions of the background application's windows. But instead of just feeding null events to the foreground application, MultiFinder can feed processing time to any background applications, as long as the foreground application has no events pending and no unprocessed window updates. However, since there is currently no provision for "preemptive multitasking", the background application must be sure to call GetNextEvent or WaitNextEvent at regular intervals so that the foreground task can keep up a responsive "feel" for the user. User events for the foreground application will *not* be handled until the background task calls GetNextEvent or WaitNextEvent.

The foreground task is not obligated to return the favor to background tasks; the needs of supporting the user are most important. Thus a background task can not expect to receive *any* processor time at all! This fact should be considered when deciding candidate activities for an application to perform in the background.

Temporary Memory Allocation

MultiFinder provides a temporary memory allocation service to help reduce the memory requirements for an application's heap. It provides the ability to allocate and release blocks and to lock and unlock handles to blocks within a special MultiFinder heap zone. This service would be particularly useful for graphics or animation buffers or for disk/file or resource copying buffers. In fact, the Finder now uses these temporary memory calls for copy buffer space during file copy operations. In Pro-Cite, I found little need for this service and so did not make use of it. See the MultiFinder Development Package for full details on the temporary memory allocation features of MultiFinder.

The New SIZE -1 Resource

To be truly MultiFinder Aware, an application must include a SIZE -1 resource, as introduced in the time of Switcher. The SIZE resource both indicates an application's memory requirements as well as its degree of MultiFinder compatibility. The format of this resource is:

```
resource 'SIZE' (-1) (  
    boolean saveScreen ("reserved", for Switcher com  
        patibility),  
    boolean acceptSuspendResumeEvents,
```

```

boolean enableOptionSwitch ("reserved", for
Switcher compat.),
boolean canBackground,
boolean multiFinderAware,
boolean onlyBackground,
boolean getFrontClicks,
unsigned bitstring[9] = 0 ("reserved")
unsigned longint (Preferred Size),
unsigned longint (Minimum Size)
);

```

We'll just ignore the bits marked "reserved". Bit 11 indicates that the application is aware of MultiFinder, if set. Some current applications may function properly only when this bit is off. If this bit is set, MultiFinder will not generate activate/deactivate events for the frontmost window at resume/suspend event times, but will expect the application to do this itself, which is the most efficient way. Bit 14 indicates support for suspend/resume events if set (an application will not receive suspend/resume events unless this bit is set), while Bit 12 indicates the capability of supporting background null events for background processing (remember, ALL applications should be capable of supporting update events at all times!). Most applications should eventually provide support for suspend/resume events while only a few initially will be capable of background processing under MultiFinder.

Two other switches, onlyBackground and getFrontClicks, are relatively new and are discussed in Technical Note 205. Set onlyBackground TRUE (along with canBackground) for a "faceless" background task that has no user interface, like the printing Backgrounder. Set getFrontClicks TRUE if you want to receive the mouseUp and mouseDown events which occur when an application is switched to the foreground. The Finder has this switch set TRUE, so that when you click on a Finder window or icon to switch the Finder to the foreground, the object clicked on becomes the active selection. I personally don't like this behavior for my application since it might change the current text selection.

The preferred memory size is no easier to determine under MultiFinder than it was for Switcher. It is something best determined by "inspection" (a euphemism for "trial and error.") The minimum size should be chosen such that the application could provide the user with a minimal amount of useful work and should never (well, almost never) give a "system error". The preferred size should be chosen such that 90% of the application's functionality may be utilized without memory problems. The application in any case should never be too greedy with its memory requirement. Remember that the application may have to exist in harmony with a number of other applications at the same time. An application with a large preferred size such as 1024K will be looked down upon by users and developers of other applications alike, unless it's a development system (or perhaps it's just FullWrite.) Provide a SIZE -1 resource in your application, but NOT a SIZE 0 resource. The Finder will create a SIZE 0 resource by copying the SIZE -1 resource the first time a user makes changes to the Application Memory Size with the Get Info dialog.

Pro-Cite has the three options multiFinderAware,

acceptSuspendResume, and canBackground all set to TRUE, a preferred memory size of 384K (which actually can be considered an operational minimum) and a minimum memory size of 224K (which is really left over from earlier support for Switcher.)

To be continued in the next issue.

This article Copyright 1989 by TechAlliance, a computer cooperative. All rights reserved. Authors are responsible for the accuracy of their submitted material. Opinions expressed do not necessarily represent those of TechAlliance. Non-profit Apple user groups may reprint editorial material contained herein for non-commercial purposes, provided author, title, and publication credits are given. The address and phone number of MacTech Quarterly should also be given: 290 SW 43rd Street, Renton, Washington 98055 Tel: (206)-251-5222

Division by Zero

This information has been supplied by Blyth Software for users of **Omnis 3 plus**, **Omnis 5** and **Quartz**.

Division of a number by zero will cause an answer of infinity. In most cases this answer is not wanted and a zero would be preferred. The use of the calculation $A*(B<>0)/(B+(B=0))$ in place of $C=A/B$ will produce the answer zero if $B=0$, and not infinity.

To help explain how the calculation works, here are some examples.

1. The values used are:

A=6 B=3

The calculation used is: $C=A*(B<>0)/(B+(B=0))$

Replace the variables with values:

$6*(3<>0)/(3+(3=0))$

Change boolean statements for 1 (true) or 0 (false)

$6*(1)/(3+(0))$

Answer to either side of calculation: 6/3

Answer to calculation:

$C=A/B$ $C=6/3$ $C=2$

2. The values used are:

A=4 B=0

The calculation used is: $C=A*(B<>0)/(B+(B=0))$

Replace the variables with values:

$4*(0<>0)/(0+(0=0))$

Change boolean statements for 1 (true) or 0 (false)

$4*(0)/(0+(1))$

Answer to either side of calculation: 0/1

Answer to calculation:

$C=A/B$ $C=0/1$ $C=0$

3. The values used are:

A=9 B=8

The calculation used is: $C=A*(B<>0)/(B+(B=0))$

Replace the variables with values:

$9*(8<>0)/(8+(8=0))$

Change boolean statements for 1 (true) or 0 (false)

$9*(1)/(8+(0))$

Answer to either side of calculation: 9/8

Answer to calculation:

$C=A/B$ $C=9/8$ $C=1.125$

Flying in PageMaker

Irene Flaxman reports on a new book, full of tips for the PageMaker user

As a frequent user of PageMaker, I find the program easy and intuitive to use. I use it for preparing many different types of document and publication — including this magazine (although Norah and Ewen do more of the pagination than I do), membership application forms, order forms, catalogues, mailshots and many other documents.

There are times, though, when I feel really frustrated because the program seems to take too long to process my commands — in particular, screen refreshing can seem to be painfully slow at times!

When I consider just how much the program does for me, I really should not complain. However, I am only human — so I expect miracles. My particular "pet hate" is customising the text-wrap around irregularly-shaped graphics. I really like the effect, but it takes so long to achieve, as the screen refreshes after every movement of the border (no matter how small the change may be).

I need suffer no more, because a new book has come to my rescue! This little paperback book contains just 40 pages, A5-sized — but I feel that this one tip has already saved me so much time that I have more than recovered the purchase price of £6.95.

The book is subtitled as "101 tips to save time & money", and it lives up to its claims. It is packed with time-saving shortcuts, hints and tips —

something for every PageMaker user. It even includes an indication of how much time you can expect to save by using each technique, and also whether this is a tip which will generally apply to other Macintosh software.

Maybe they are all included in the software manual? I don't know, because I have to admit that I have never read the manual (does anybody read the manuals for Macintosh software?). Incidentally, that is the subject of one of the first tips!

I had already found some of the tips for myself by trial-and-error techniques — but there were many little gems of which I was not aware. Basi-

cally, it comes down to understanding how the program handles various functions and commands.

The book is very easy to read, being well-organised and including a useful index to help you find that tip you need right now!

I did not take long to read right through the text, but now I can use it for reference when I need it. The contents are all useful, but written in a very friendly style so they are easy to understand and to use.

It seems that the potential for the book is obvious, and I'm pleased that Roger Long took the initiative to go to print.

I am delighted to recommend it to all PageMaker users. Maybe you already know all the shortcuts, etc. — but I certainly found many ways to improve my effectiveness, even though I had considered myself to be an experienced user of the program. 🍏

Written by Roger Long. Published by Hi Resolution Publications. The cost of the book is just £6.95 (including P&P), and it can be purchased from Shop2000 in the usual ways.



Your Authorised Apple Dealer for all

APPLIED ENGINEERING PRODUCTS

SPECIAL WINTER SALE PRICES !

PC Transporter with 768K (640K PC)	£329.00
Installation Kit for Apple IIGS	29.00
Installation Kit for Apple IIe	29.00
TransDrive 360K Single-Drive	149.00
TransDrive 360K Dual-Drive	229.00
360K Half-height TransDrive mechanism	79.00

IBM-style Keyboard including Cable	89.00
Digital RGB adaptor cable IIe	15.00
ColorSwitch Analog RGB adaptor	29.00
8087-2 Math Co-processor Chip	149.00

GS RAM 512K	169.00
GS RAM Plus 1MB	199.00
Buffer Pro 32K	69.00
Parallel Pro	69.00
Serial Pro	89.00

RamFactor 256K	135.00
RamFactor 512k	175.00
RamKeeper IIGS	99.00

Audio Animator IIGS	119.00
Sonic Blaster IIGS	85.00

TimeMaster HO	69.00
Phasor	99.00
A/D + D/A Card	119.00
16 Channel, 12 Bit A/D	159.00
I/O 32 Card	59.00
High Output Power Supply (Not IIGS)	69.00
Transwarp IIGS	279.00

Vulcan Internal Hard Disk Drive 20MB	425.00
Vulcan Internal Hard Disk Drive 40MB	545.00
Vulcan Internal Hard Disk Drive 100MB	995.00

APPLE IIE

RamWorks III 256K	139.00
RamWorks III 512K	229.00
RamWorks III 1Meg	299.00

TransWarp Accelerator Card	119.00
----------------------------	--------

Vulcan Internal Hard Disk Drive 20MB	345.00
---	---------------

*Please add VAT
to all prices*

HOLDENS COMPUTER SERVICES

The Mansions, Chapel Lane,

Longton, Preston PR4 5EB

FAX (0772) 615919 TEL (0772) 615512

Network News

The latest news, tips and gossip
from the networks.

Subject: Can I run IBM PC software on Mac II?

From: Anthony J Stieber @ University of Wisconsin-Milwaukee

Alex Nghiem writes: >With reference to your suggestion to buy a clone in addition to the Mac instead of a DOS coprocessor or DOS software emulation: - >The disadvantage of this setup is that you can not have DOS and Mac process the same files simultaneously. With the AST coprocessor, you can network the D: drive to a Macintosh folder.<

Not necessarily. You could get a LocalTalk board for the PC. TOPS or Appleshare would allow you to use files from either machine. For greater speed, Ethernet cards could be used instead. This configuration will give you 5.25" conversion for nothing. Since the Mac can be used as a file server all you need is a cheap clone, these can be had for as little as \$500. For even greater speed you can get a 386. This still will not make for the easy cut and paste that the AST board has. Tony Stieber

Subject: Can I run IBM PC software on Mac II?

From: Alex Nghiem @ The University of Texas at Austin, Austin, Texas

[Discussion: to use local talk adapter or ethernet adapter with a clone to network folders/ directories between PC and Mac, instead of an AST coprocessor]
The limitation here would be the transfer speed?
Alex

Subject: Can I run IBM PC software on Mac II?

From: James Beard MD @ Washington University in St. Louis

Yes, you can run IBM PC soft-

ware on a Mac II. The program that does this is SoftPC. It offers performance no better than that of a PC/XT, due to the fact that a single 80x86 command may take multiple 68020 commands to emulate. Reportedly it can handle the great majority of applications (as distinct from TSR utilities). Unfortunately I don't know the publisher (but felt obliged to respond in view of a reply that suggested there was no software-only way to run MS-DOS programs on a Mac II).

If no one on the net names the publisher for you, try paging through a recent MacUser magazine. AST manufactured an IBM-PC emulator card for a while (I think they have very recently stopped), but the software method is far less expensive and obviously much easier to install. James Beard

Subject: SIMM pricing

From: Trent Lange @ UCLA Artificial Intelligence Laboratory

Speaking of the Mac IICX with the 25 Mhz processor, you can bet your bottom dollar that it will be more expensive than the normal IICX. The best we can hope for is that they'll lower the price of the normal IICX. All computer makers seem to do this. The relative prices of their machines are based on their relative "power", and not on their production cost.

I believe that the Plus and SE are good examples of this. The Plus, from what I've heard, is actually *more* expensive to manufacture than the SE, because of the SE's newer design that was optimized in part particularly for low production cost. But obviously if they charged more for the Plus than the SE, they wouldn't sell any of them... So by substan-

tially cranking up the cost of the SE, they kill two birds with one stone (the other bird being their profit margin on the SE). Another example is almost certainly the II versus IIX. Besides the Superdrive, the two machines are identical - except that the IIX's motherboard is much less complicated, since it doesn't need to worry about the PMMU. But we all know which machine Apple charges *substantially* more for... It's all a charade, but they'll do it as long as people are willing to pay extra for extra power, which will be always.

Trent Lange

Subject: Email for Macintosh

From: John Felleman @ Agfa Compugraphic Division, Wilmington, Mass. USA

I am looking for information about email for the Mac. We have an environment which mixes Sun's, a VAX, and Macintosh's. The Unix stuff is all enet'ed together, the Macs are mostly AppleTalk'ed using Phonenet. Some Mac's have serial connections to the VAX as well, and at least one has ethertalk, along with TOPS, which sort allows it to talk to a Sun.

I am looking for an email system (commercial or PD) that will allow everyone to send mail everywhere, painlessly and quickly, of course. The two that I have seen references to are Microsoft Mail and CE Software's Quickmail. Any information on these or other packages would be appreciated.

Standard deal: reply by email, will post...

Thanks,

John Felleman
AGFA Compugraphic
200 Ballardvale St.
Wilmington, Mass. 01887

Subject: Email for Macintosh

From: Richard Ewing @ Apple Computer Inc, Cupertino, CA

Run, do not walk, and get Quickmail from CE software. This is probably the most flexible package to date, is very fast, handles large groups over multiple servers with ease, and due to its open architecture, can be modified to handle Compuserve, MCI Mail, Genie, and a variety of other sources. In addition, Star*Nine, the A/UX enhancement people have introduced a Quickmail

called mail*link SMTP which allows any Macintosh uses TCP/IP and SMTP protocols to send mail directly to Unix machines, vaxen, or anything else that supports SMTP. Localtalk machines will need a KineticsFastpath or Cayman Gatorbox or some equivalent IP/DDP router.

Rick Ewing
Apple Atlanta

Subject: Email for Macintosh
From: Philip Wong @ The Johns Hopkins University - HCF

But will this solve the problem with addresses bouncing? I know how to use the mail system, but the addresses never get to where I want them to go. Does this program somehow find out a valid path so I will get no more bounces?

Philip Wong

Subject: Email for Macintosh
From: Robin Goldstone @ California State University, Northridge

I have done some testing of Quickmail and found it to be much slower than Microsoft Mail in terms of communication with the mail server. For example, system startup takes nearly 30 seconds longer than normal while QuickMail queries the server. Quickmail has some nice features such as conferencing, but I found the product to be anything but 'quick'. StarNine has announced support for microsoft mail and tops mail in the near future. I will hold out until then since our users are committed to MS mail.

Robin Goldstone

Subject: Clean Computing
From: Owen M. Hartnett @ Brown University Department of Computer Science

Let me speak to you a moment about a problem that plagues all of us:

Dirty Mac Cases.

That's right. Those formerly nice platinum (or beige) casings are now (or will soon be) impregnated with some real impermeable crud (even though there's no smokers or anyone who would do such a thing as dirty a Mac case on purpose.) It seems Macs just seem to attract dirt from the air and revel in it, resulting in some nasty streaks and stains.

Here's a test: (I know this will be hard!) Take your eyes off your

Mac's screen just for a minute. (Only just for a minute, you can put them back right away.) Now, look at your case. Wretched, isn't it? OK, Mac hackers! What do *you* use to clean your Mac case? (Given that you do clean it.) What works the best? Also, what did you use that really messed it up, if you so did?

This is really valuable information, not available in stores, so I await your contributions!
Owen Hartnett
Brown University Computer Science

Subject: Clean Computing
From: Larry Prince @ UCLA Computer Science Department

Depending on the type of crud, we use one of several cleaners in our repair lab, on virtually any equipment, including-but-not-limited-to Macs.

- 1) A spray cleaner such as 409 or Fantastik (spelling?).
- 2) A contact cleaner, available in any electronics supply store (yes, this works great on EXTERIOR dirt and smudges).
- 3) Isopropyl alcohol.

NOTE: We recommend the following "don'ts":

Don't spray solvents or cleaners directly onto the equipment - use a clean (pref. static-free) nonabrasive cloth.

Don't use strong solvents like acetone or MEK!

Don't leave the equipment turned on while cleaning.

(Maybe I'm being fussy, but better safe than sorry...)

Larry Prince

Subject: Clean Computing
From: Chris Cleeland @ Computer Science Dept., Tulane Univ., New Orleans, LA

I use the wet terminal wipes that came with my Macintosh (it was bundled with the system from the store). They seem to have some sort of alcohol-based solution in them, and it takes off the dirt quite well. If you can't find these (they should be available at your local neighborhood business computer store), try using some Windex.

Chris Cleeland, Tulane University

Subject: LogicWorks for Mac
From: David B. Pakman @ Wharton Computing, University of PA

Has anyone heard of LogicWorks for the Macintosh? It is a digital circuit simulator, not unlike DigiSim. Any comments? I am looking to evaluate any digital circuit simulators, emulators, or design tools available.

If you know anything about these or where one could obtain them, I would appreciate hearing from you.

Thanks,
David Pakman
Apple Student Rep
University of Pennsylvania

Subject: LogicWorks for Mac
From: z8my @ XYNE knowledge structures

I found laying out circuits in LogicWorks to be too much work. You've got to lay out all the components, then route all of the wires yourself (every little corner you care to turn) It's far too easy for crossed wires to become logically connected, and several cycles of deletions and additions seem to confuse it - some wires become connected internally, though the display shows them unconnected. Usually, at that point, you've start up a new worksheet, and rebuild the circuit...

Also, there isn't a whole lot of debugging support. You can start and stop the circuit. That's it.

It seems to me that a program of this type should allow multiple views of the circuit, I remember spending a lot of time scrolling around, or adding some wires and logic probes to bring all of the relevant signals and switches onto one screen.

Also, the component library is rather small (though it does have a way to add "libraries" of black box components)

Finally, the hardcopy output is horrendous. Black box components from "libraries" are bitmapped objects. Single wires can become disconnected on the printout.

This may seem harsh: other people seemed to think it was the next best thing to sliced bread (oohh, what an awful cliché...) But some of these complaints were in common.

Sam Paik

P.S. I used it in a class here at Cornell.

Subject: More on Jasmine
From: Blake Sobloff @ St. Olaf

College, Northfield, MN

It's sad to see Jasmine taking such a beating on the net. All I can say is that they have been excellent in their dealings with me and that I won't hesitate to recommend Jasmine the next time someone asks for recommendations on hard drives. BTW, the reason my drive went in yesterday was because of the controller, not the drive mechanism itself. Oh well...
Blake

Subject: More on Jasmine

From: Chuq Von Rospach

I should point out (for people who haven't been around long) that I'm a long-time fan of Jasmine. Two of my drives had three digit serial numbers (the one that failed monday was #244 of the new Driveware style 20 meg). They took good care of me as well the last time I needed help. That's why I find all of this so depressing. Knowing what they used to be capable of, seeing their lack of caring for me this time and hearing the horror stories out of ComputerWare (and others) makes me sad. I've been a strong fan of Jasmine - but Jasmine has convinced me to take my business elsewhere in the future by their actions.

Chuq Von Rospach

Subject: Mathematica and Memory.

From: Paul Fons

First of all let me say that I work part-time for WRI, the makers of Mathematica. I have been using Mathematica for quite some time on my home Mac II with 5MB of memory with no problems.

In addition, to the best of my knowledge, Mathematica does not "crash" at all when memory runs short, but rather puts up a dialog box warning the user that memory is running out and allows the user to save. The minimum memory advised for the current version of Mathematica (as opposed to 1.2 which is coming out shortly) is 2.5MB. It is possible to do meaningful work with only 2.5MB, but memory will fill quickly.

As memory prices are pretty much under control these days, I would suggest at least 5MB on a Mac II as a reasonable platform. I don't believe a suggested mini-

mum memory figure has been made for 1.2, but I doubt it will be different.

The code segmentation is optimized to the extent it can be, thus the real memory limitation (whether you need 8 MB) really turns about the question what sort of data are you going to be storing during a session. Obviously if you use lots of complicated 3D graphics and large data sets, 8 MB will be more appropriate.

To wrap up I would say try 5MB, and in all likelihood it will be fine, you can always add more memory later or use the virtual memory in V7 of the operating system- yes Mathematica is "32 bit clean".

Paul Fons

University of Illinois

Coordinated Science Laboratory
1101 W. Springfield Av.
Urbana, Illinois 61801 U.S.A.

Subject: Vanishing Laser II NTX

From: EXZ @ Penn State University - Center for Academic Computing

We've had a problem with LaserWriter II NTXs vanishing from the network; suddenly they are no longer visible as network devices. Power cycling the Laser brings it back.

Our configuration is as follows: PhoneNet-based AppleTalk Internet consisting of 4 networks, each in it's own zone, linked by Inter Bridges.

Starcontrollers are used to link nodes; each branch has 1-6 devices on it, each branch is terminated with a resistor. We have 2 LaserWriter II NTXs that are vanishing. No problem with NTs.

Has anyone seen this problem? Please reply by email & I'll summarize.

Steve

Penn State University

Subject: What is the Best "C" compiler program

From: Dave Long

Another book you may want to look at is called *Macintosh Programming PRIMER: Inside the Toolbox Using THINK's LightspeedC*, by Dave Mark and Cartwright Reed. This has just come out from Addison-Wesley. I haven't had a chance to read it yet, but it looks like a good starting point for someone who knows

a bit about programming, but doesn't know how to deal with the mountains of Inside Mac, (at least not yet! :-))

Dave Long

Computing Services Office
University of Illinois

Subject: 150MB Tape Backup Software/Hardware

From: Frank Malczewski @ University of Southern California, Los Angeles, CA

I am interested in owning a 150MB tape drive for (using the Teac CT-600N tapes). This is primarily due to a recent Disk Express catastrophe (fortunately fixable, but a real pain).

There are currently five different drives available via mail order (as advertised in the "big two"), one of which I have been using (evaluating under a 30-day money-back guarantee). These are

Shamrock's Orchard [the one I am trying out - available "locally" to me]

Everex's EMAC 150T

MacCrate's

MicroNet's

Dolphin's Flipper

I am somewhat unhappy with the software accompanying the Orchard drive (but I have only had the drive since yesterday, and am waiting on the software manual to arrive next week sometime). It provides for an image backup capability, that can only be restored to the drive it backed up (or perhaps a drive with the same name with the same or larger size (?? where ?? indicates haven't tried yet). In either case, it apparently only backs up the non-free space files, but I wasn't quite brave enough to restore it until I am completely prepared.

It also provides file by file backup, but I have not had any success yet; it has crashed very near the end of the restoration phase twice - each time being preceded by an individual backup (perhaps the tape is defective - I'm not sure what error - 1024 means (yet ??)). I am attempting to backup approximately 100M and move it to another partition on my drive. The crashing behaviour may be the cause of some of the folders/files ending up in the wrong place folder-wise, but the most irritating characteristic is that the

modification dates of all restored files are of either (all of this was discovered yesterday) the date the file was backed up or the date the file was restored (same day, so can't quite tell); in any case, it is not the date on disk.

The file software is script driven, so will supposedly backup whatever file(s) you want and any subset thereof, although it appeared to avoid backing up my [bracketed] folders (ala DiskFit).

The drive itself appears to be pretty nice though. Anyway, I was wondering whether any of the other four drives provided a better piece of backup software; to me this means:

1. files will keep their original creation/modification dates
2. folder hierarchy structure will be retained and view preferences
3. backup sets can be placed on any disk/partition as long as there is sufficient space for them.

I've also read that (no real details) some of the popular backup utilities that we all use and love will be providing support for the Teac-based drives real soon now. Is anyone aware of which applications these might be, and whether they will support the 150MB density? And when exactly (more or less) such versions will be available? I use a combination of DiskFit/ floppies and still more floppies to keep a complete backup set (+/- a few files here and there).

Also, any opinions on the overall reliability of the 150MB Teac hardware platform?
Thanks...
Frank Malczewski

Subject: Users of MS Excel -> Wingz

From: Kevin O'Gorman

>I have been using Wingz on my Plus, and it is perfectly useable, and much faster than Excel. Then only problem is when you do 3D graphs - these are real slow, and it updates them (redrawing the entire graph) much too often.<

Well, I just got my copy of Wingz. I was a bit tired of MS software, and it was worth it to take a peek at an alternative.

My Impression: a neat tool, but I can't use it without a significant change to how I do things. For one thing, I use a number of spreadsheets in different folders, with a

couple of master sheets that are linked to the scattered detail sheets. As near as I can tell, you can't link spreadsheets at all in Wingz. I really like having changes to my bank balances or receivables charts show up immediately in the Net Worth spreadsheet. I could do this with one big sheet in Wingz, but then I would lose some of the flexibility I now enjoy about how the sheet looks, and where it is.

The other thing is that some of my spreadsheets are HUGE. Of course, Wingz can handle the size, but when I'm in the midst of the sheet, I can't see the row and column heads. In Excel, I handle this by splitting the window. I can't see a way to do that in Wingz. So it looks like it's a tool I'll use for presentations, which is where it's got itself positioned. Too bad, I don't do that very much.

I keep hoping for the one tool that will do it all for me. I know, dream on....

Kevin O'Gorman

Subject: Users of MS Excel -> Wingz

From: Kevin O'Gorman

David Cortesi writes:

>It may not be exactly what you want, but any expression may refer to the value of a cell in any other open spreadsheet, so that "Sales:C20" is that cell in the sheet named Sales. The catch is that the other sheets have to be open at the same time; Wingz won't go get them. But if a group was always used together you could start work by dragging a Finder rectangle around them and double-clicking...<

Not a solution: remember my sheets are in different folders, and you can't do that trick across folders. Besides, there's quite a few of them scattered about, and the whole reason this looks like a useful thing to do is that I don't have to think about where the other sheets are or what they are unless I'm working with their data. Also, where is this documented? I can't find linking in the index, and I'm not sure what else to look for.

David Cortesi writes:

>Again it's not exactly the same thing, but you can open multiple windows onto any sheet and drag and resize them, so you could open a window showing just col-

umn heads and then overlap it with a window in which you scroll to the detail rows. (And other windows on other sections of your HUGE sheet, in sizes & shapes as you want...)<

Oh, I didn't try that. It still sounds like an awkward solution, though, because the headings won't scroll as I navigate in the "entry" window. Plus, I would need two windows of headings so that I could navigate independently along both margins. The size of the toolbox means this would cost a lot of real estate, but I do have a 19" monitor, so it sort of fits.

Overall, it's a possible kludge.

Without a solution to the first problem, though, I'm afraid Wingz goes on the shelf for now.

Kevin O'Gorman

Subject: A question about System 7 and the 68000

From: Murray Karstadt @ Rutgers University, Newark, NJ

We have several older Macs, both Mac+'s and SE's, is there any advantage in upgrading memory for use with system 7.0. Can these older Mac's take advantage of outline fonts in system 7.0
Thanks in advance.

Murray

Subject: A question about System 7 and the 68000

From: Chuq Von Rospach

The only thing a non-PMMU system can't take advantage of with System 7.0 is virtual memory.

Chuq Von Rospach

Info-Mac digests consist of submissions by individuals on the academic computer networks. Submission and distribution of these digests is by network, moderated by volunteers at Stanford University.

Usenet is a loosely-coupled network of co-operating academic and commercial computer systems. It is a non-profit network whose primary aim is the sharing of technical information and the spreading of research results.

Delphi is a commercial time-sharing and bulletin board system. The Delphi Digests are made available thanks to Jeffrey Shulman of Rutgers University.

Macintosh Technical Note #245

Font Family Numbers

#245: Font Family Numbers

Written by: John Harvey August 1989

This Technical Note discusses the range of numbers available for identifying font families, how they are allocated among script systems, what numbers should be used for fonts that were designed to be used as a tool in an application, and Apple's font registration program.

Introduction

The `txFont` field in a GrafPort record is a signed word. This means that there are 32,768 positive numbers that can be used to identify font families (0 through 32,767). Currently these numbers are broken into groups and assigned to different script interface systems.

Apple has also created a pseudo-script called `smUninterp`. This pseudo-script provides a range of numbers that can be used to identify fonts that are used as tools in an application. An example of this is the font used by MacPaint® for its palette symbols.

A Brief History of Font Family IDs

Font families are identified in two different ways. When the Macintosh was first introduced, fonts were grouped into font families by storing the family ID in bits 7-14 of the font's resource ID and the font's point size in bits 0-6. The family was named by including a 'FONT' resource with a point size of zero. This method is documented in *Inside Macintosh*, I-234, The Font Manager.

Since the font family ID had to fit into eight bits, the range of numbers available was only 0-255: 0-127 were reserved for Apple, and 128-255 were available for third-party developers.

The second way that font families are identified is through the 'FOND' resource. The 'FOND' resource is a resource type which describes a font family. It was introduced with the 128K ROMs, which also introduced a new resource for storing font data, the 'NFNT' resource. An 'NFNT' resource has the same internal format as the old 'FONT' resource.

'FOND' resources group fonts into font families with a font association table (*Inside Macintosh*, IV-39, The Font Manager). A font association table contains a word to hold the font's point size, a word for its style, and a word for its associated 'FONT' or 'NFNT' resource ID. This new mechanism meant that 'NFNT' resources could have any number for their resource ID. In addition, since font families were now identified by a 'FOND', and not by bits 7 through 14 of a 'FONT' resource's ID, the range of font family IDs was now 0 through 32,767.

Scripts and Their Ranges

As stated in the introduction, each script interface system that can run on the Macintosh has a range of font family IDs assigned to it. A script's range can be calculated (see Technical Note #242, Fonts and the Script Manager), but a table of scripts, their script IDs, and the range of font family IDs assigned to each script are provided in this Note.

Roman On

Obviously, there are a lot more font families available for Roman systems than any other. This situation is fortunate, because there are a lot more fonts designed and sold for Roman languages than any other. In fact, there are so many fonts available that many of them are using the same font family IDs. This creates the infamous problem of font ID conflicts. If you never heard of font ID conflict before now, consider yourself lucky.

In an attempt to alleviate the font ID conflict problem, Macintosh Developer Technical Support implemented a font registration program in early 1989. The registration program provides ID numbers for font families that are entirely composed of 'NFNT' resources.

Families which consist of 'FONT' resources and 'NFNT' resources are not registered. The registration number for each family must be used as the resource ID of the 'FOND' which identifies the family.

The registration program has further delimited the 16,384 IDs available for Roman systems in the following manner:

0 to 255

Font families which are named in the method described in *Inside Macintosh*, Volume 1, The Font Manager. These IDs should no longer be used. Please note that Apple's system fonts (e.g., Chicago, Geneva, New York, etc.) will always retain their old IDs. Also note that IDs 0 and 1 are especially inviolate, as the system has the right to map any font family from any script system to these IDs.

256 to 1023

Reserved numbers. These numbers should be thought of as reserved space that the Font/DA Mover can use to resolve past and future font ID conflicts. Numbers in this range should not be used as a font family's original ID.

1024 to 3071

Non-commercial (i.e., public domain) fonts. Non-commercial fonts are **not** registered.

3072 to 15999

Commercial font vendors' fonts. These numbers are assigned in descending order. There are currently 8,165 unassigned numbers in this block, and most large commercial font vendors have already been assigned large blocks of IDs.

16000 to 16383

Reserved. These numbers should not be used.

How Does This Affect You?

This Note describes how font family IDs are distributed. Developers who use a font as a method of storing symbols which are used in a palette or store a font in the resource fork of their application for some other special purpose, should use numbers in the range 32,256-32,767.

Fonts designed specifically to be stored in an application's resource fork should not be registered. There are very few good reasons for storing fonts in an application's resource fork, as it can create serious problems for a user who tries to print a document that uses that font when background printing is on.

Fonts should **never** be stored in a document's resource fork. Storing fonts in a document's resource fork is a known cause of heap corruption.

Note that HyperCard stacks are documents. If you feel that your stack loses all its artistic merit without a certain font, you should license it for distribution in a suitcase file and let the users install it in their systems.

Font vendors who need information on the font registration program should AppleLink their request for information to the address Font.Reg.

For those without AppleLink accounts, send your request to the following address:

Font Registration Program
Developer Technical Support
Apple Computer, Inc.
20525 Mariani Avenue,
M/S 75-3T
Cupertino,
CA 95014

Script	Script ID	Font Family IDs
System Reserved	All	0 - 1*
Roman	0	2 - 16383
Japanese	1	16384 - 16895
Chinese	2	16896 - 17407
Korean	3	17408 - 17919
Arabic	4	17920 - 18431
Hebrew	5	18432 - 18943
Greek	6	18944 - 19455
Russian	7	19456 - 19967
Reserved	8	19968 - 20479
Devanagari	9	20480 - 20991
Gurmukhi	10	20992 - 21503
Gujarati	11	21504 - 22015
Oriya	12	22016 - 22527
Bengali	13	22528 - 23039
Tamil	14	23040 - 23551
Telugu	15	23552 - 24063
Kannada	16	24064 - 24575
Malayalam	17	24576 - 25087
Sinhalese	18	25088 - 25599
Burmese	19	25600 - 26111
Cambodian	20	26112 - 26623
Thai	21	26624 - 27135
Laotian	22	27136 - 27647
Georgian	23	27648 - 28159
Armenian	24	28160 - 28671
Maldivian	25	28672 - 29183
Tibetan	26	29184 - 29695
Mongolian	27	29696 - 30207
Ethiopian	28	30208 - 30719
Non - Cyrillic Slavic	29	30720 - 31231
Vietnamese	30	31232 - 31743
Sindhi	31	31744 - 32255
Uninterpreted Symbols	32	32256 - 32767

* Font family IDs 0 to 1 are reserved. The system always maps the correct system font to font 0 and the correct application font to font 1. On a Roman system, Chicago is the system font and Geneva is the application font. Obviously this is not true on the Kanji system or any other non-Roman script interface system (see Technical Note #242, Fonts and the Script Manager for more details on how various script systems map fonts to font family 0).

Further Reference:

- *Inside Macintosh*, Volume I, The Font Manager
- *Inside Macintosh*, Volume IV, The Font Manager
- Technical Note #242, Fonts and the Script Manager

MacPaint is a registered trademark of Claris Corporation.

Apple2000 Index

An index of the articles in Apple2000 during 1989.

Title	Author	Page	Machine
60 into 20 does fit after all	Wannop E.	4(2) p38	II, IIGs, Mac, MacII
A tale of Eve and that Watchmaker	Tickle M.	4(3) p22	II, IIGs
Adobe Announces New Software Package		4(4) p80	Mac, MacII
Amnesia	Ward D.	4(3) p32	II, IIGs, ///
AnonWare	Arnold N.	4(3) p43	Mac, MacII
Another Mac Virus		4(2) p49	Mac, MacII
Apple and the DTP Market	Flaxman I.	4(3) p49	Mac
Apple II GS/OS		4(6) p23	IIGs
Apple II Library News 2GS013-4		4(4) p30	II, IIGs
Apple IIGs Linkup to Sinclair QL	Aitken S.	4(6) p12	IIGs
Apple IIGs Machine Language for beginners	Ward D.	4(6) p16	IIGs
AppleDouble File Format	Usenet	4(2) p46	Mac, MacII
AppleWorks 3.0	A2 Central	4(4) p8	II, IIGs
AppleWorks 3.0	Davis P.	4(6) p34	II, IIGs
AppleWorks on the II+	Wessberg J.	4(2) p20	II
Applied Apple Spreadsheets : 1	McMullin P.F.	4(3) p34	II, IIGs, ///
Applied Apple Spreadsheets : 2	McMullin	4(4) p18	II, IIGs
Applied Apple Spreadsheets : 3	McMullin P.	4(5) p20	II, IIGs, ///
Artificial Intelligence : 1	O'Connell A.	4(5) p54	Mac, MacII
Artificial Intelligence : 2	O'Connell A.	4(6) p54	Mac, MacII
AUG Sweden		4(5) p12	II, IIGs
Balance of Power	Fisher C.	4(6) p74	Mac, MacII
BETT 1989	Arnold N & J.	4(1) p47	Mac, MacII
Book Reviews	Arnold J.	4(6) p51	Mac, MacII
Build Your Own Vanilla SCSI Tape Backup...	Buchholz K.	4(6) p20	II, IIGs
C	Miller D.	4(3) p8	IIGs, Mac, MacII
C: an example	Miller D.	4(5) p19	All models
Calling all present and future Apple /// fans	Enflo R.	4(2) p18	///
Canvas 2.0	Bennett E.	4(2) p64	Mac
Character Map & Folder Locker	Arnold N.	4(4) p64	Mac, MacII
Cheapcolor	Arnold N.	4(3) p64	Mac
Cheats Corner	Cavanagh L.	4(1) p33	II, IIGs
Chessmaster 2000	Ward D.	4(1) p20	II, IIGs
Cirtech Diamond Hard Disk Drive	Ward D.	4(4) p21	II, IIGs
Cirtech Diamond Hard Disk Drive	Wannop E.	4(4) p72	Mac, MacII
Club Business		4(3) p70	II, IIGs, Mac, MacII
Communicate	Rookledge K.	4(6) p36	II, IIGs
Confessions of a Computer Caprice		4(4) p72	Mac, MacII
Confessions of a Computer Caprice		4(5) p72	II, IIGs, Mac, MacII
Controlling the Real World	Hill B.	4(3) p12	II, IIGs
Cool It!	Ward D.	4(3) p30	II, IIGs
DB Master	Cymbalisty T.	4(3) p18	II, IIGs
Deepspace	Hornby R.	4(3) p22	II, IIGs
Deja Vu	Fisher C.	4(6) p48	Mac, MacII
Design	Arnold N.	4(2) p44	Mac, MacII
Diverse Databases	Knapp M.	4(2) p50	II, Mac, MacII
Ear Shattering Noises Off	Freeman S.	4(2) p32	IIGs
ExpressWrite	Wood G.	4(4) p50	Mac
FAXstf™	Bradley P.	4(1) p70	Mac, MacII
FileMaker Revisited	Accino J.	4(5) p9	Mac
Finder, EasyDrive and ProSel...		4(6) p18	IIGs

Flights of Fancy	Hornby R.	4(1) p7	II, IIGs
Fractal Explorer#	Littlewood E.E.	4(5) p6	IIGs
Fulltext Pro-80	Carson G.	4(2) p4	II, IIGs
GS Font Editor	Beattie J.	4(6) p14	IIGs
GS System 5.0	Ward D.	4(5) p28	IIGs
GS-OS	Ward D.	4(1) p 26	IIGs
Hardcore Pips	Sharp J.	4(3) p16	II, IIGs
Hardcore Pips	Sharp J.	4(5) p10	II, IIGs
Hardcore Pips	Sharp J.	4(6) p5	II, IIGs
Hardcore Pips (1981)	Sharp J.	4(2) p9	II, IIGs
Harrier Strike Mission II	Fisher C.	4(4) p54	Mac
Heraldry III	Arnold J.	4(3) p57	Mac, MacII
Hot Line	Ward D.	4(6) p32	II, IIGs
Hotline News	Ward D.	4(1) p30	
Hotline News	Ward D.	4(4) p14	II, IIGs
HP DeskJet Printer	Rookledge K.	4(5) p14	II, IIGs
HyperCard Forum		4(6) p72	Mac, MacII
HyperStudio	Ward D.	4(5) p35	IIGs
IIGs Battery- Handy Tip	Sedalia AUG	4(4) p23	IIGs
IIGS Software Selector	Kishimoto J.	4(5) p30	IIGs
ImageWriter LQ	Wood G.	4(1) p54	Mac
Implementing Undo	Rosenstein L.	4(6) p70	Mac, MacII
Koala Reference Guide for the Mac		4(3) p49	Mac
Learn Persuasion	Flaxman I.	4(3) p55	Mac
Linnet Modem	Bradley N.	4(1) p 24	II, IIGs, Mac, MacII
Mac Inker	Ward D.	4(5) p17	All models
Mac Library 901-904	Arnold N.	4(1) p76	Mac
Mac Library 905-906	Arnold N.	4(2) p	II, IIGs, Mac, MacII
Mac Library 908-911	Arnold N.	4(3) p76	Mac, MacII
Mac Library: 107-109,912-916	Arnold N.	4(4) p76	Mac, MacII
Mac Library: Program updates	Arnold N.	4(5) p76	Mac, MacII
MacChat	Arnold N.	4(1) p42	Mac, MacII
MacChat	Arnold N.	4(2) p41	Mac, MacII
MacChat	Arnold N.	4(3) p42	Mac, MacII
MacChat	Arnold N.	4(4) p42	Mac, MacII
MacChat	Arnold N.	4(5) p42	Mac, MacII
MacChat	Arnold N.	4(6) p42	Mac, MacII
Macro You.Accuse	Davis P.	4(2) p24	II, IIGs
MacroMate	Stark P.	4(4) p22	IIGs
MacSeptember 89	Wannop E.	4(5) p74	Mac, MacII
MacWorld Expo	Flaxman D & I	4(2) p54	Mac
Marble Madness	Bradley R.	4(3) p27	II, IIGs
Maze Survival	Wright A.	4(1) p66	Mac
Medley	Stark P.	4(4) p6	IIGs
Merlin 16+	Ward D.	4(4) p16	IIGs
More on PT-109	Wright T.	4(1) p46	Mac, MacII
MultiFit 1.5	Arnold N.	4(6) p66	Mac, MacII
N-Font	Arnold N.	4(3) p54	Mac, MacII
Network News		4(1) p62	Mac, MacII
Network News		4(2) p60	Mac, MacII
Network News		4(3) p60	Mac, MacII
Network News		4(4) p60	Mac, MacII
Network News		4(5) p60	Mac, MacII
Network News		4(6) p60	Mac, MacII
Nisus	Wood G.	4(3) p44	Mac
Nossous; multilingual footnoting	Ubaydli A.	4(4) p48	Mac, MacII
Omnis 5	Pearce B.	4(6) p44	Mac, MacII
Outside Bug Reporter	Apple Computer Inc.	4(1) p72	Mac
Partition Experiences	Littlewood E.	4(5) p37	II, IIGs
Pascal example	Miller D.	4(4) p28	All models
Pascal Power	Miller D.	4(1) p8	
Patches to SuperCalc 3a	Sugar H.K.	4(4) p27	IIGs
PlusDisc SC	Ward D.	4(2) p22	II, IIGs
PlusDisk SC	Wannop E.	4(1) p40	II, IIGs, Mac, MacII
PlusRam 16	Ward D.	4(2) p30	II, IIGs
PostScript Fonts from the UK	Flaxman I.	4(3) p49	Mac
Pot Pourri of Games	Hornby R.	4(5) p15	II, IIGs

ProDOS Filetypes	4(5) p26	II, IIGs
Program Writer 2.0	4(6) p30	II, IIGs
Programmer's Intro to the Apple IIGS	4(5) p24	IIGs
ProSel-16	4(4) p24	IIGs
Quarterstaff	4(1) p56	Mac
Routine Machine	4(2) p15	II, IIGs
ScanMan™	4(4) p68	Mac, MacII
Sensible Grammar	4(5) p50	Mac, MacII
Sensible Writer 1.01	4(5) p8	II, IIGs
Smooth Those Greys	4(2) p58	Mac, MacII
SoftCat Corner	4(3) p37	II, IIGs
SoftCat Corner	4(4) p15	II, IIGs
SoftCat Corner	4(5) p25	IIGs
Software Circus	4(6) p68	Mac, MacII
Solitaire Royale	4(1) p44	Mac, MacII
SpreadTools	4(2) p12	II, IIGs
StopWatchDA	4(2) p59	Mac, MacII
Studio/1	4(4) p47	Mac, MacII
SuperSounds	4(1) p34	IIGs
System 7.0	4(4) p44	Mac, MacII
Technical Tabbs	4(1) p31	
Telecom Gold Databases and other facilities	4(4) p34	II, IIGs, Mac, MacII
Tetris Review	4(1) p50	Mac
The 'L' Test	4(6) p13	II, IIGs
The Boffin	4(1) p36	
The Care and Feeding of your Laser Printer	4(3) p50	Mac, MacII
The Fidelity ChessMaster 2100	4(5) p22	IIGs
The Filofax Fallacy	4(2) p52	
The future for Macintosh development	4(4) p56	Mac, MacII
The Graphic Exchange & Print Magic	4(3) p20	II, IIGs
The IIGs Library	4(1) p6	IIGs
The King of Chicago	4(2) p33	IIGs
The Macintosh IICI	4(5) p48	Mac, MacII
The Nibbler	4(4) p32	All models
The Nibbler	4(1) p38	II, IIGs, Mac, MacII
The Nibbler	4(2) p40	II, IIGs, Mac, MacII
The Nibbler	4(3) p38	All models
The Nibbler	4(5) p38	All models
The Nibbler	4(6) p38	II, IIGs, Mac, MacII
The Portable Data Modem	4(5) p49	Mac, MacII
The Portable Mac	4(5) p46	Mac, MacII
The Programmer's Online Companion	4(3) p73	Mac, MacII
The Rocket Chip	4(3) p24	II, IIGs
The SiCONE Si3033 accelerator	4(4) p49	Mac, MacII
The Software Encyclopedia	4(5) p58	Mac, MacII
Time on Your Hands	4(2) p16	II
TimeOut!	4(1) p14	II, IIGs
TN#189: Version Territory	4(2) p66	Mac
TN#205: MultiFinder Revisited	4(1) p68	Mac
TN#227: Toolbox Karma	4(3) p66	Mac, MacII
TN#229: A/UX 1.1 Toolbox Bugs	4(6) p64	Mac, MacII
TN#230: Macintosh SE/30	4(3) p67	Mac, MacII
TN#234: NewBus Physical Designs-Beware	4(4) p66	Mac, MacII
TN#242: Fonts and the Script Manager	4(5) p66	Mac, MacII
TN#244: A Leading Cause of Color Cursor ...	4(4) p68	Mac, MacII
TransWarp GS	4(3) p28	IIGs
Universal Military Simulator (UMS)	4(5) p68	Mac, MacII
User Groups	4(1) p78	
Using Format-80	4(2) p26	II, IIGs
Using the Glanmtre MicroWatch	4(6) p26	II
Vaporware	4(5) p64	Mac, MacII
War in Middle Earth	4(6) p17	IIGs
What do you do with yours?	4(6) p58	Mac, MacII
Wordbench	4(6) p8	II, IIGs
WordPerfect for the Mac	4(2) p70	Mac
Z88-to-Mac	4(4) p46	Mac, MacII
Zany Golf	4(2) p10	II, IIGs
Ward D.		
Boyle A.		
Ward D.		
Wright A.		
Game T.		
Chamberlain K.		
Wood G.		
Beale D. A.		
Long R.		
Gurr J.		
Gurr J.		
Gurr J.		
Wright T.		
Davis P.		
Long R.		
Electronic Arts		
Warwick P.		
Apple Computer Inc.		
Fisher C.		
Mealy B.		
Jeffries W.V.		
Ward D.		
Pearce B.		
Leonard R.		
Stark P.		
Wannop E.		
Kishimoto J.		
Apple Computer UK		
Apple Computer UK		
Arnold J.		
Ward D.		
Hill B.		
Davis P.		
Adler D.		
Burnard D.		
Tecot E.		
Radcliffe D.		
Knepper C.		
Collyer R.		
Harvey & Edberg		
Mimms A.		
Wannop E.		
Fisher C.		
Lee J.		
Watson L.		
Quinn J.		
Sewell M.		
Kishimoto J.		
Dawson M.		
Littlewood E.		
Wood G.		
Durling D.		
Freeman S.		

Members' Small Adverts are FREE.
Please help us to help you. Send your advertisements to us on a disk, in Mac or Apple II text format. We will return the disk, of course. This saves us time, and avoids errors.

Members' Small Ads

Members' Small Adverts are FREE.
We reserve the right to edit and or omit them. They are placed in this Magazine in good faith. Apple2000 holds no responsibility over items advertised, and buyers purchase at their own risk.

**WARNING: The sale of copied or pirated software is illegal.
Please ensure that items offered for sale are new or are re-registered.**

FOR SALE

Mac SE, 2 x Disc Drives, Imagewriter 1
Roland DXY-888 A3 Plotter inc. spare pens and paper
MGM CAD-CAM Software + Write Now£1,850

Apple IIe, 2 x 5.25" Apple drives, 2 x 3.5" Apple drives,
Apple monitor, Apple Accelerator card, Brother HR35
Daisywheel printer + sheet feeder Appleworks, Applewriter
and Omnis 3£800

Both of these systems are complete and ready to run.

*Phone John Summers(Daytime) 0797 551115
.....(Evening) 0181 612442

FOR SALE

THUNDERSCAN: Version 1, complete with MacPlus connection cable, power supply, original user manual and ThunderScan version 3.1 software.....(inc. P&P) £75

MULTISTRIKE RIBBONS: 11 unused Inmac type 6422 black printer ribbons(the lot, inc P&P) £15

*Phone Frank Pycroft0153 761410
or Fax.0153 761410

FOR SALE

Macintosh 512/800, with 2mb Dove upgrade which works as a second disk. VGC includes boxes, packing etc. Also Imagewriter II and unopened Word 3, Works 1, Powerpoint, Excel 1.5 and Basic£1500 ono

*Phone Andrew Lee-Gough01905 627715

WANTED

Complete set of Apple Pascal Disks
Plus any books on Apple Pascal Programming

*Phone David(evenings) 0424 651115

FOR SALE

10MB Ice Hard Disk c/w Interface Card, Manual & Multi-user Housekeeper Disk Runs CP/M (with Z80 card not incl) and Pascal 1.1/2- using Cirtech software can recognise and use Ramcard, apparently Prodos£100ono
Videx Videoterm 80 column card and manual..£20 ono
Language Card Applesoft/Integer Basic£10 ono
Visicalc c/w manual£15 ono

*Phone David(evenings) 0424 651115

FOR SALE

Apple IIe with 80-column card & Apple green monitor
2 x 5.25" floppy disk drives and many blank disks

1 x Prism modem & controller card for PRESTEL

Games controller

AppleWorks program V2.0 + manuals

Pinpoint Utilities disk

Desktop disk: IIGS-style icons/fonts without using mouse

ZBasic disk and book

All above with original programs and manuals

The total package£250 (negotiable)

*Phone Ian Webb(after 6.30pm) 0184 541 4015

The 2nd International Conference for Medical and Applied Bio-Electrography

March 30th to April 4th 1990

KIRLIAN PHOTOGRAPHY NOW

The Conway Hall, Red Lion Sq.
London WC1

Rosemary Steel
has gathered an impressive group
of international speakers,
covering a wide range of topics related to
Kirlian Photography & BioElectrography

If you are interested in participating,
please contact:

Rosemary Steel
The Kirlian Institute
(01 841 3458)

A solution for everyone . . .

We offer the full range of Apple II and Macintosh 512K, Plus, SE and II computers, accessories and software from individual items to sophisticated systems for the latest applications in desktop publishing or computer aided design at competitive prices.

Whatever your interests as a newcomer, enthusiast, professional, small business or large public company, we can provide new and used equipment, with excellent service, reliability and after-sales maintenance, training and support.

With such a wide range of Apple Macintosh equipment and applications, why not call us to discuss your requirements.

ROGER D'ARCY COMPUTERS
Tel.: Oxford (0865) 728787

Apple 2000 Workshop

Over the last two years we have been lucky to have Bidmuthin as hosts to our Apple II Workshops. They have been so successful that I have been keen to organise another. At long last I have pinned down Mark and Steve at Bidmuthin to a date for our next Workshop, so get your diaries out and pencil in Saturday March 24th, 1990. This time we will widen the scope and the day will cover interests for both the Apple II and Macintosh.

Date and Time

Saturday
March 24th
10am - 4pm

Subjects

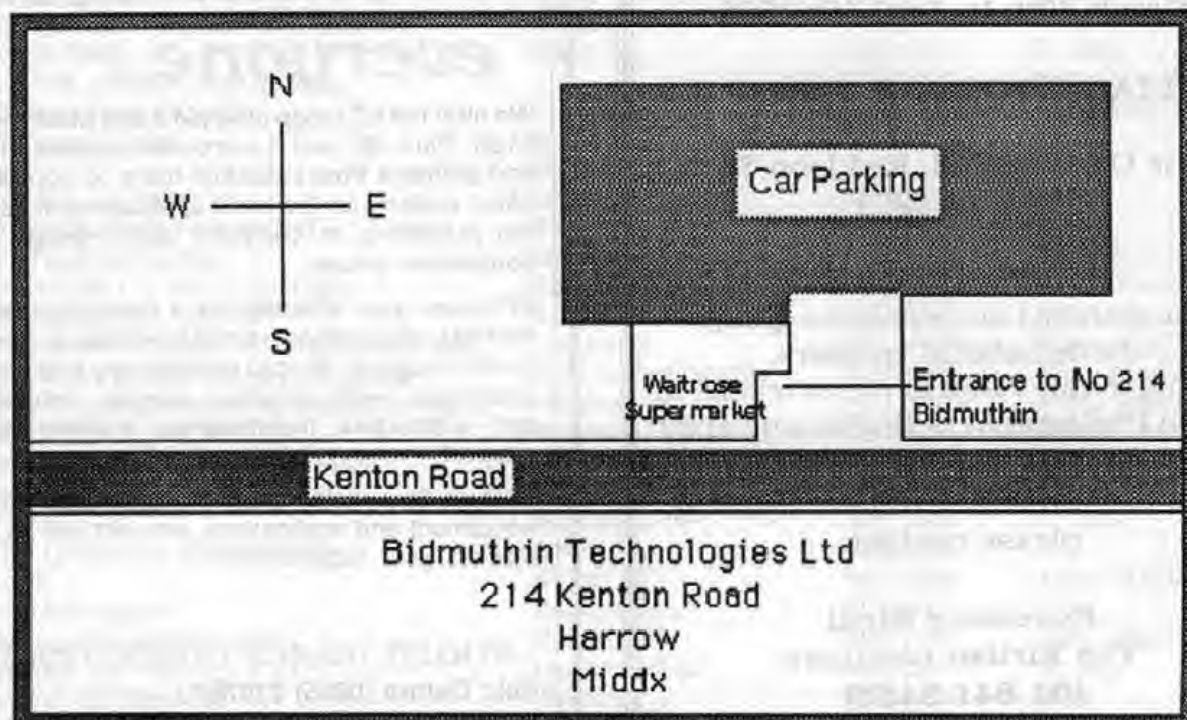
Cirtech disk on a card
(internal Hard Disk for Apple II)
Inkjet Printers
Plus all that's new for the Apple II
and Mac

Venue

See Map below

Bidmuthin is situated above and behind the Waitrose Supermarket. Ample car parking facilities are available at the rear. Nearest tube station is Northwick Park (5 mins walk) or Harrow-on-the-Hill (5 mins Taxi). Both on the Metropolitan line.

Any problems phone Mike on (0452) 714998





Chameleon Software

The Apple Specialists:

Tel 0775 85481



Sony Branded Disks Prices Incl. V.A.T. & P&P

3.5" DS/DD 1-9 boxes	£11
3.5" DS/DD 10+ boxes	£10.50
3.5" DS/DD (quantity discounts on request)	£27

Disk Boxes

80 Capacity 3.5" (lockable with hinged lid)	£5
150 Capacity 3.5" Posso box (grey)	£15
100 Capacity 5.25" (lockable w hinged lid)	£6

BOOKS BOOKS BOOKS BOOKS BOOKS BOOKS BOOKS BOOKS

Send for our list of over 1700 titles!!
Orders over £50 post free!

FREE CABLE GUIDE

Which cable goes where and which do I need anyway?
If you don't know then you need our cable guide, its free and it won't cost you a penny to send for it!

Ribbon Re-inking Service

At £1.75 per ribbon including return postage and VAT.
We are able to re-ink ImageWriter and most Epson & compatible ribbons, if you have another type please enquire before sending.
NOTE: A minimum order of 4 ribbons please. Also red, blue, green, brown, yellow, purple, gold and silver single colour ribbons available for most types.

Second User Corner

Cannon Scanner & MacScan interface, for Mac.75, 150, 200, 300 dpi greyscale and output to a large range of file formats.
Includes software, manual & leads, only... £650
(over £1800 new!!!)
Apple //e 80col 128k enhanced, 2dd, monitor.
All in excellent cond. £400
Send for full list of Apple II Second User Items

Power Filter/ Surge Protector

For anyone who values their equipment and/or work:
3 amp model £30 Adaptor type, simply plug in and go!
7 amp model £36
A very cost effective way to protect your investment.
BRITISH MADE - nothing but the best.

PSST!! Want a Mac, Mac? Our prices are as keen as anyone else - why not give us a call we could even beat the competition!

All prices exclude P&P (£2 per order) and VAT. E & OE.

Lists Available:

1. Apple II Series, over 1500 items.
2. Apple Macintosh Series, over 1100 items.
3. Book List, over 1700 titles.
4. Cables, over 50 listed.

FREEPOST, Pinchbeck, SPALDING, Lincs. PE11 3BR

Disk , Double sided	£
3.5" Sony branded, box of 10, 2DD	12.50
3.5" Sony/TDK bulk packed, 25 off	20
3.5" Sony, HD, box of 10, 2HD	29
3.5" HD bulk packed, 10 off	24
5.25" 48 tpi, bulk packed, 25 off	8
5.25" disk notcher	5
3.5" lockable storage box, 100 cap.	7
5.25" lockable storage box, 110 cap.	7

Toner Cart.'s	£
Apple Laserwriter (black)	75
Apple Laserwriter II (black)	79

Computer Images

15 Grove Market Place,
Eltham, London, SE9 5PU

Access/Visa cards,
Telephone: 01 - 850 3883

Cables , size as stated	£
SCSI 25 way to 50 way, 1m	13
SCSI 50 way to 50 way, 1m	21
8 pin to Imagewriter 8 pin, 2m	6
8 pin to Imagewriter 25 way, 2m	10
8 pin to modem, 25 way D plug	10
ANET kit	31
ANET, cable, 10m	10
ANET in-line coupler	6
4 pin extension cable, 1.5m	8

Printer ribbons, price per 3 off	£
Fabric, black, compatibles	
Imagewriter II	11
Imagewriter LQ	24
Epson EX800 / 1000	12
Epson LQ500 / 800 / 850	11
Epson LQ 1000 / 1050	12
Epson LX80/86	8
Epson MX/FX80	10
Star LC10	11

All prices include VAT, Carriage free, E&EO

HyperCard Forum

Questions and answers from HyperTalk programmers.

Subject: Sorting Containers (HyperTalk Script)

From: Dan Allen @ Apple Computer Inc.

Several people have wanted a routine to sort lines of a field or variable (containers). Here is a HyperTalk script that uses the selection sort method of sorting. Selection sorting is an algorithm of order n^2 , however, for the average random cases where $n < 1000$, selection sorting often performs closer to $n \log n$, so it is not bad for small sort jobs. Quicksort or Heapsort would be better for large n , but this is so simple...

This script is a function. For example, if you wanted to sort field 1 of the current card, you could say:

```
put sortContainer(field 1) into field 1
```

Here is the actual script:

```
function sortContainer anyContainer -- selection sort
get anyContainer
put the number of lines of it into numLines
repeat with i = 1 to numLines - 1
  put i into k
  put line i of it into x
  repeat with j = i+1 to numLines
    if line j of it < x then
      put j into k
      put line j of it into x
    end if
  end repeat
  put line i of it into line k of it
  put x into line i of it
end repeat
return it
end sortContainer
```

Enjoy! - Dan Allen

HyperCard Team, Apple Computer

Subject: Re: Sorting Containers (HyperTalk Script)

From: Stephen Kurtzman @ University of Southern California, Los Angeles, CA

This is picky, but I suspect that an expression such as "line j of it" is not an $O(1)$ operation in HyperTalk. If we assume some reasonable fixed bound on line length, then it is probably $O(j)$ since it would have to scan the string for the $j-1$ occurrence of a line break and then copy all of the characters up to the j th line break. What this means is, if my suspicion is correct and we assume there is an upper limit on line length, the script above is actually $O(n^3)$, where n is the number of lines in the container.

Like I said, it was a picky thing. It shouldn't stop

anyone from using the script. Thanks to Dan for posting it.

A point the script supports, which Dan may or may not have been trying to make, is that it is easy to quickly put together some very functions useful functions in HyperTalk. The sortContainer script is a great example. It probably took Dan a couple of minutes because HyperTalk has simple expressions to access bits and pieces (actually lines, words, and chars) of containers.

In other words, there's little reason to wait around for someone to write an XCMD for a function that can be implemented very quickly in HyperTalk.

Subject: Re: Sorting Containers (HyperTalk Script)

Good point. This script could probably be optimised massively, but as mentioned, it is a short (1 screen) script that sorts lines. I hope other people can pull out their Knuth "Sorting and Searching" volumes and improve on this simple example. I wrote the script in 10 minutes. I am sure that hours will prove worthwhile.

Dan Allen, Apple Computer

Subject: Re: Sorting Containers (HyperTalk Script)

From: Andrew Stone @ University of New Mexico at Albuquerque

Why wait? Wing Eng. of Cornell posted ShellSort awhile back. It sorts containers several MAGNITUDES faster than a HyperTalk script. That's the efficiency difference between a tool and a toy.

Andrew

Subject: Re: Line height and auto wraparound.

From: Paul Andrews @ TORCH Computers Ltd., Cambridge, England

In answer to the question:

>Is it possible for a script to determine whether a given string, containing no carriage returns, can be placed in a particular field (window) and have each char. of the string be immediately visible?<

Well, sort of. It is possible to determine whether the string fits AFTER you have placed it in the field (you could then remove it of course). You do something like the following:

- 1) put the text in the field.
- 2) Determine the height and textheight of the field
- 3) sit in a loop starting at the bottom of the field and working up to the top in jumps of the textheight.
- 4) In the loop 'click at x,y' (y being the variable decremented by textheight)
- 5) 'get the selectedline'.
- 6) Until the selectedline changes, you are in the same

'HyperCard line' even though you are in a different screen line.

This may not be a direct answer to your question, and it is certainly not a complete algorithm but you should be able to use the same general method.

This is not a wonderfully clean way of doing what you want, but if it's absolutely essential, what choice do you have?

- Paul.

Subject: re: Using fields with scroll bars

From: Jim Taylor

I agree with the other guys that it would probably be more efficient to dispense with the button, but here's a quick and easy way to find out if the user has scrolled the field. When you put up the button, save the scroll state of the field in a global variable ('put the scroll of field <whatever> into oldScroll'). The put a mouseWithin handler in the field that checks to see if the scroll has changed. It would look something like this:

```
on mouseWithin
  global oldScroll
  if the scroll of me <> oldScroll then
    - user has scrolled: hide button, or whatever
  you need to do
end if
end mouseWithin
```

Jim Taylor

Microcomputer Support for Curriculum
Brigham Young University

Subject: Printing fields - problem!

From: Brian Kendig @ Systems Engineering

In my HyperCard stack, I have a background text field in which different information is entered on each card. The information is only a few paragraphs of text, but it's too much to all fit in one screen, so I'm using a scrolling field to hold it all.

I'd like to have a "Print" button that the user can click on to obtain a hardcopy of the text on a certain card. HyperCard can't do this directly. I've found three different XCMD's to do the trick - but none of them works correctly.

o First, I had HyperCard copy the text in the field to the clipboard, then use PrintClip (from the Developer's Stack) to print it out. Most of the text comes through okay, but strange garbage characters are also thrown in. I can't have this generate the same output twice in a row. Strange.

o So I tried PrintDoc, an XCMD that is included in the ShowDialog stack. I had high hopes, because that stack appears to be very well-made, but PrintDoc flat-out bombed my machine.

I don't see where I'm going wrong. All of this was tested on one Mac Plus and one Mac SE, both connected to a LaserWriter Plus over a TOPS network. The network has never given me problems before, no matter what contortions I put it through, so I have faith in it. It's the XCMD's I don't trust.

Anyone happen to have any ideas as to why these won't work, or suggestions as to what other means I could try to print my text from HyperCard?

Many thanks! Brian S. Kendig

Computer Engineering, Princeton University.

Subject: SuperCard and HyperDA

From: Peter Chen @ Rutgers Univ., New Brunswick, N.J.

Hi, I am currently working for a computer lab, we are trying to establish some on-line help by using HyperCard. There are some problems regarding this, however. First, is it true that HyperDA does not handle graphics? Second, what do the people who have tried SuperCard think of it? We are seriously considering the option of developing in SuperCard. If anybody has solutions to the problem with HyperDA or suggestions regarding SuperCard, I would very much appreciate your reply.

Thank you, Peter Chen

Subject: Re: SuperCard and HyperDA

From: Robert I. Campbell @ Math Dept., UC Berkeley
I have used HyperDA successfully for just the purpose you seem to be facing, and have found it to be quite adequate. It will work correctly with any pattern that you put on either a background or a card. I don't know if it implements the new "show graphics" and "hide graphics" HyperTalk commands (but I doubt that it does). There are some HyperTalk commands that it will not implement, but it is easy to write a good help stack avoiding these commands (the only gripe I had was that I couldn't implement selecting from a scrolling field of options, but I have learned to do without it).

If you want, I can send you copies of a help stack for MPL (a shareware BASIC interpreter) and for Mathematica, which I wrote to be read by HyperDA.

Robert Campbell

Public Domain Software & Shareware

We have large selections of some of the **BEST** Public Domain Software & Shareware for the Apple Macintosh, & Apple II range of Computers. We also supply Public Domain Software for other popular computers. Please phone & ask if we support **your** computer!



Macintosh

£4.99 per disk
Each disk at least 95% full

Apple II

From £3.75 per
5.25" disk

IBM PC

& Compatibles
£2.95 on 5.25" disks
£4.50 on 3.5" disks

All prices are fully inclusive of
VAT & Postage. Orders nor-
mally despatched in 2 days.

FREE catalogues available

Kingsway Computer Services

72 Glencoe Road, Sheffield S2 2SR

Tel (0742) 750623

PostScript

Questions and Answers concerning PostScript printers and programming.

Subject: text > postscript

From: Anthony Foiani @ New Mexico State University, Las Cruces, NM

I am posting the source to 'txt2ps', a filter to output text files on a PostScript printer.

```
----- cut here -----
/* printer.c version 1.2 */
/* last modified 2/4/86 23:07:05 */
/* this file created 2/4/86
23:07:19 */
/* text file to PostScript converter
* 66 lines/page, elite typeface
* suggest this be used in conjunction
with pr(1)
*
```

* Copyright (c) 1986 by Pipeline Associates, Inc.

/* text2ps.c */

/*

Modifications:

7/22/88

by Marc Prewitt

NMSU Computer Center
Small Systems

Added switches:

-l (landscape)

-b (BitNet)

-o Output

-p n (n = page length, default = 66 for landscape, 57 for portrait)

-f fontname

-z fontsize

-s n (n = line spacing, default = 1)

-m n (n = left margin in inches)

-t n (n = left margin in inches)

10/15/88

MP

Included support for environment variables. The program checks for an environment variable with the same name as argv[0], and

retrieves options from that variable. In this way the different names can be linked to the same code and environment variables created for different options.

```
*/
/* Future Features:
/
/
No previous regular expression
legal size paper option
parse out mail files and print
specified messages
multiple copies
*/
```

```
#include <stdio.h>
```

```
#include <time.h>
```

```
#include <fcntl.h>
```

```
#define TRUE 1
```

```
#define FALSE 0
```

```
/* #define TURBOC */
```

```
#ifdef TURBOC
```

```
#define _rename(A, B) rename(A, B)
```

```
#else
```

```
#define _rename(A, B) link(A, B)
```

```
----- cut here -----
```

Subject: Rounding Corners

From: James 'Kibo' Parry

Does anyone have a good way for rounding the corners/ends of letters in a font? (I.e. to change Helvetica into an approximation of Helvetica Rounded, etc.) I suppose a routine that knocked pixels off of corners would work, if anyone has bothered to program such a thing...

I'm not a PostScript expert... yet.

Thanks in advance.

James "Kibo" Parry,

138 Birch Lane,

Scotia,

NY 12302

USA

Subject: Re: Rounding Corners

From: James Ashton @ Dept of

Comp Sci, Uni of Sydney, Australia

If you mean can you do this in postscript, the answer is no.

It is true that some fonts (like those in the Courier family) are described as strokes and somewhere in their font dictionaries (I'd love to know where) is the linecap, linejoin, miterlimit and linewidth information.

By changing these four parameters you could create a reasonable new font. For example you could change linecap and linejoin from 1 to 2 for the Courier family fonts and have a Square Courier family. In your example you'd change linecap and linejoin from 2 to 1 if only Helvetica was defined as a stroked font.

Sadly it is an outline font, meaning the outline shape of the glyphs is given instead of the centre paths. PostScript insulates the user from the output device's bit map as much as possible and so there is no (even faintly easy) way for you to go around turning off the 'corner' pixels either.

James Ashton.

Subject: Re: Changing resident font name

From: Amanda Walker @ Inter-Con Systems Corporation

Well, one major problem is that Helvetica Condensed and Helvetica Narrow are *not* the same font. I'd suggest either:

- getting the real Helvetica Condensed screen fonts from Adobe or SUMEX-AIM
or

- define the Helvetica Narrow fonts. They are simply Helvetica with a modified transformation matrix.

Here is some PostScript to do this (at least, it works for me):

```
----- cut here -----
% Helvetica Narrow PostScript font
```

```
8 dict begin
```

```
  /FontType 3 def
```

```
  /FontMatrix [.00082 0 0
```

```
    .001 0 0] def
```

```
  /FontBBox [0 0 1000 1000] def
```

```
  /Encoding StandardEncoding def
```

```
  /BaseFont /Helvetica find
```

```
font 1000 scalefont def
```

```
  /String 1 string def
```

```
  /BuildChar {
```

```
    exch begin
```

```
String exch 0 exch put
BaseFont setfont String
stringwidth
newpath 0 0 moveto
String false charpath flattenpath
pathbox
setcachedevice
0 0 moveto
String show
end
} def
currentdict
end /Helvetica-Narrow exch de-
finefont pop
```

----- cut here -----
The same can be done for the other fonts in the family. I've gone one step further and made four Macintosh PostScript font files that I've stuck into my system folder. This way they are as easy to use as any other downloadable fonts.

Amanda Walker

"Some of the worst mistakes in history have resulted from trying to apply methods that work fine in one field to another where they don't." -James Hogan

Subject: Why are postscript fonts so tight?

From: Gregory R. Lehmann @ University of Queensland, Brisbane, Australia

It seems to me Adobe have made a mistake with their fonts.

They all have an extremely annoying tendency to run together. The classic example is burn which turns into bum when printed on our 2 laser printers.

Does anyone know why they have done this? I have heard comments that it is not the fonts but the software that produces the postscript.

I have disproved this by writing my own postscript program to print burn. I still got bum. I can't believe Adobe expect every piece of software to put extra space around every character just to make the resulting text readable. Any other theories?

Greg

The WDEF Virus

by John Norstad

The WDEF virus was first discovered in December, 1989 in Belgium and in one of our labs at Northwestern University. Since the initial discovery, it has also been reported at many other locations throughout the United States, so we fear that it is widespread. We have reason to believe that the virus has been in existence since at least mid-October of 1989. We know of two strains, which we call "WDEF A" and "WDEF B."

WDEF only infects the invisible "Desktop" files used by the Finder. With a few exceptions, every Macintosh disk (hard drives and floppies) contains one of these files. WDEF does not infect applications, document files, or other system files. Unlike the other viruses, it is spread through the sharing and distribution of disks, usually floppy disks.

WDEF may have been introduced initially via a Trojan Horse application, in a fashion similar to the way the MacMag virus was first introduced via a Trojan Horse HyperCard stack. We do not yet know if this is indeed the case, and we may never know.

WDEF spreads from disk to disk very rapidly. It is not necessary to run a program for the virus to spread.

The WDEF A and WDEF B strains are very similar. The only significant difference is that WDEF B beeps every time it infects a new Desktop file, while WDEF A does not beep.

Although the virus does not intentionally try to do any damage, WDEF contains bugs which can cause very serious problems. We have received reports of the following problems:

- The virus causes both the Mac IIci and the portable to crash.
- Under some circumstances the virus can cause severe performance problems on AppleTalk networks with AppleShare servers.
- Many people have reported frequent crashes when trying to save files in applications under MultiFinder.
- The virus causes problems with the proper display of font styles (the outline style in particular).
- We have two reports that the virus can damage disks.
- We have a report that the virus causes Macs with 8 megabytes of memory to crash.
- We have a report that the virus is incompatible with the "Virtual" INIT from Connectix.

Even though AppleShare servers do

not use the normal Finder Desktop file, many servers have an unused copy of this file anyway. If the AppleShare administrator has granted the "make changes" privilege to the root directory on the server, then any infected user of the server can infect the Desktop file on the server. This is one of the situations which can lead to the severe performance problems mentioned above. For this reason, administrators should never grant the "make changes" privilege on server root directories. We also recommend deleting the Desktop file if it exists. It does not appear that the virus can spread from an AppleShare server to other Macs on the network, however.

Unfortunately, when the WDEF virus first appeared, none of the current versions of the most popular virus prevention tools were able to detect or prevent WDEF infections. This includes Vaccine 1.0.1, GateKeeper 1.1.1, Symantec's SAM Intercept 1.10, and HJC's Virex INIT 1.12.

Chris Johnson, the author of GateKeeper, has released "GateKeeper Aid," a free system startup document (INIT) that detects and automatically removes WDEF infections and notifies the user of the infection. GateKeeper Aid can be used together with GateKeeper or together with Vaccine to provide protection against WDEF. New versions of the commercial tools should also be released soon, and we expect that at least one other free protection tool will also be available soon. It is very important that all Mac users obtain and install GateKeeper Aid or some other WDEF protection tool. You can use Disinfectant to remove an existing infection, but if you do not install a protection tool you may very likely become infected again.

We do not yet understand the WDEF virus as thoroughly as we do the other older viruses. We have disassembled it completely, and we understand the basic replication mechanism. We know that it can cause serious problems, and we know why it causes some of the problems. Research into the behavior and adverse effects of this virus will continue for some time. When the WDEF virus was first discovered, the authors of most of the popular virus-fighting programs and other experts immediately began working together to analyze and test the virus. The information presented here is a compilation of our joint discoveries. The author would like to thank everybody who helped in the investigation.

The article in the following two columns has been printed from the info provided with Disinfectant 1.5 because of the experience of MacPublishing whose disk sent to subscribers with Vol 1, No 2 contained the WDEF A virus.

Mac Library

The AppleXtras Mac 1 Disk

On the AppleXtras Mac 1 Disk are the following programs: Disinfectant 1.5; Vaccine 2.0; Virus Detective 2.1.1; Easy Envelopes 5.0; AppointmentMaster 1.1.1 Stack; HyperIcons 2.0 Stack; Curious Cat v1.1; Histogram Maker 1.03; MacGraph v5.2; Hot Air Balloon

time you may catalogue other disks by simply inserting them into any of your disk drives. There are two windows, one for Files and the other for Fonts and Desk Accessories. The Files window is a list of the files sorted by file name. If a file contains any Fonts and/or Desk Accessories it will be

displayed in **Bold**. To see

what a particular file contains make it the current file by clicking on it (It will then be highlighted). If it contains any Fonts and/or Desk Accessories they will be shown in the other window. You may also change the current file by using

one of the items under the Search menu or by typing a key on the keyboard. Typing an 'A' will make the first file which starts with A the current file and so on.

Disinfectant 1.5

Disinfectant version 1.5 recognizes the Scores, nVIR, INIT 29, ANTI, MacMag, and WDEF viruses. It also recognizes all the known variations and clones of these viruses. It will both detect the viruses and repair files that have been infected by the viruses. Disinfectant will not recognize all possible viruses—only the ones it

has been configured and programmed to recognize. If a new virus, strain, or clone appears, we will have to modify the program to recognize it, and you will have to get a new copy of the program.

Viruses should not be confused with other types

of destructive software such as "worms" and "Trojan horses." The media seem to have incorrectly appropriated the term "virus" to describe all types of destructive software.

A "worm" is a program that replicates and spreads, but does not attach itself to other programs. Unlike a virus, it does not require a host to survive and replicate. Worms usually spread within a single computer or over a network of computers. They are not spread through the sharing of programs. The most well-known example is the Fall 1988 Internet worm, which infected and disabled several thousand government and university UNIX computers in a single day.

A "Trojan horse" is a program that appears to do something useful, yet additionally does something destructive behind your back. An example is the "Sexy Ladies" HyperCard stack, which erased your hard drive while you ogled the cheesecake images. Trojan horses do not replicate.

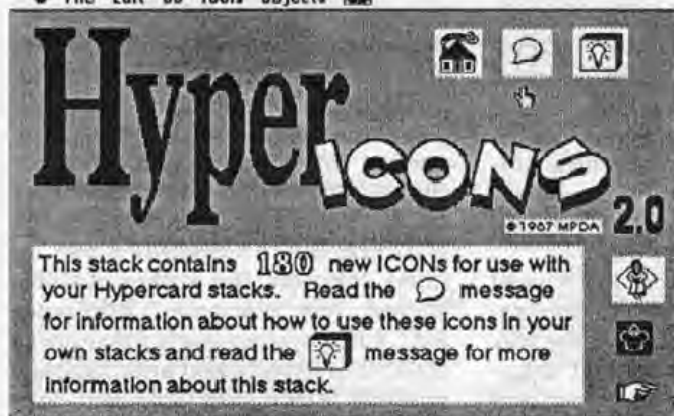
Disinfectant does not attempt to address the problems of worms and Trojan horses.

Vaccine 2.0

Disinfectant will not protect your software against infection—it will only locate and repair previously infected software. For protection, you should use the Vaccine control panel document (INIT/cdev). Vaccine is the single most important virus-fighting tool you can use. It was written by Don Brown of CE Software, and it is free.

We recommend performing a Disinfectant scan immediately before installing Vaccine, to be certain that your software is uninfected. To install Vaccine, drag a copy of it into your system folder. Then open the Control Panel desk accessory. Find the icon of a hypodermic needle labeled "Vaccine" and click on it. You will see a column of four check boxes. Make certain that the top and bottom boxes are checked, and that the two middle ones are not checked. Then restart your Mac.

File Edit Go Tools Objects



and Triple Yahtzee.

Curious Cat

Bob Boylan created a "Curious" cataloguer, curious to know which Fonts/DAs were contained in each system file along with numerous Font/DA Mover holding files. This "Curious Cat" program has now solved one of the Macintosh users' most frustrating problems.

"Curious Cat" is a simple program to use, all functions are straight forward. At startup you will be asked if you wish to catalogue the disks currently online. After this

Triple Yahtzee					
Dice	Scoreboard				h Scores
Roll #2	John	Paul	George	Ringo	
Ones					
Twos					
Threes					
Fours					
Fives					
Sixes	6	6	6	6	
Total	6	6	6	6	
Bonus	0	0	0	0	
Upper Total	6	6	6	6	
3 of a Kind	10	13	17		
4 of a Kind					
Full House					
Small Straight				0	
Large Straight					
YAHITZEE					
Chance					
Lower Total	18	13	17		
YAHITZEE Bonus					
Combined Total	24	19	23	6	
Triple Yahtzee	24	19	23	6	
Grand Total	24	19	23	6	

You should also install copies of Vaccine in the system folders of any floppies that you use as start-up disks. The virus tools disk described in the instructions is an exception.

VirusDetective™

Viruses leave *fingerprints* when they infect an application, your System file or any other file. In technical jargon these fingerprints are called **resources**. What **VirusDetective™** does is provide a means to search for these resources using various matching criteria. Before I go further I should mention that the intention of **VirusDetective™** is to *detect* viruses, not to remove them. Unless you *absolutely* know what you are doing you should *not* use the **Remove** button but either replace the infected file or use one of the various repair programs available (several are distributed on the **VirusDetective™** disk).

My advice if you suspect you have a virus is first, don't panic! Next, if you can replace the infected file from your original disks or an uninfected backup, do so. If you can't, use one of the eradication programs for that virus. There are several good ones in the public/shareware domain. Finally, use **VirusDetective™** to check all new files and disks before you use them. You should also use programs like **Vaccine** or **GateKeeper** to help you prevent any new virus from infecting you.

Jeff Shulman

PO Box 521

Ridgefield, CT 06877-0521

2/25/89

Hot Air Balloon

Hot Air Balloon was programmed in TML Pascal. It uses many of the features from InsideMac that many programs do not use. Some of these are CopyBits, Changing Resresources, Pict resources, Region Masks, Music and all of the procedures to animate the objects on the screen. Full use of the Mac interface is also there in a real program, not just a shell. The source code is an excellent example and learning tool for Pascal programmers. The code can easily be converted to LightSpeed and Turbo Pascal. The source code is available for \$15.00 from Bill Clark, 1301 Sylvia Dr., Bakersfield, CA. 93304. Special

thanks to Duane Blehm, Home-Town Software.

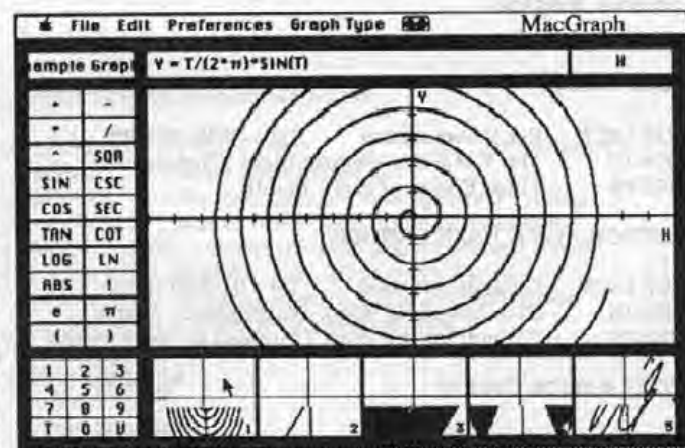
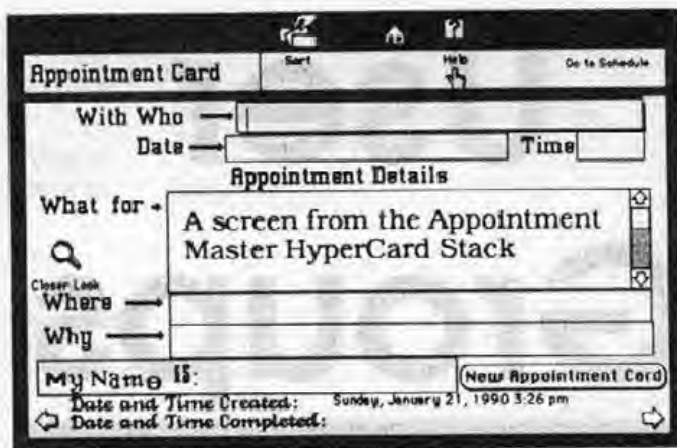
Version 2.1 now supports the Mac II. To change the speed (slow down) the game to operate on the Mac II, select the Mac II menu item in the Score Menu. There is now startup sound while the title window is displayed. The program plays the "Around the World in 80 Days" theme. The graphics have also been improved. The man in the balloon now throws out sand from a bag when going up. He holds on when going down, and throws his arms

up when the balloon explodes. The program is now set with a SIZE resource to determine the proper memory size for Multifinder.

The random flight altitude of the stork lowers and its speed increases as the level increases to level 2 and 3. **STAY AWAY FROM THE STORK!** When the stork disappears off the left of your screen watch for the stork on the right. Because it's altitude is at random levels you never know where it will appear. If you are caught and you must hit the stork try to maneuver the Balloon so it will hit the basket area or top flag. This will deduct the lowest amount of points and will not explode the Balloon. If you have a choice between the other objects and the Stork take the tree or pole. Remember you can only reset your high score if you complete all three levels.

MacGraph

MacGraph is a graphic package constructed by Bill Sammons for Drexel University. Its purpose is to allow the user to demonstrate the graph of almost any function that he wishes. This package is



fairly easy to use and conforms to the standard Macintosh user interface.

The first window, the uppermost and leftmost, is the title window. It displays the name of the current document. If no name exists, this window will display "Untitled." The window directly to its right is the function window. This window starts with the characters "Y =", this is followed by a blinking cursor. This is the window that will contain the function to be graphed. When the program is instructed to draw or redraw the graph, it will inspect what follows the "Y =" prompt. You should not destroy the function prompt at any time. This window has the standard editing features that most programs use. You can either type the function directly from the keyboard or you can use the function and number palates described below. You may also use either at any time. Note that when typing in a function you may use either upper or lower case without caution.

The AppleXtras Mac 1 disk will be placed in the library as Disk 391 as from March 11th 1990.

User Groups

London Region

ESSEX GROUP

CONTACT - Pat Bermingham Tel : 0206-861111
 VENUE - The Y.M.C.A., Victoria Road, Chelmsford
 MEETS - Third Friday of every month

CROYDON APPLE USERS GROUP

CONTACT - Graham Attwood Tel : 081-8911111
 VENUE - 515, Limpsfield Road, Warlingham, Surrey
 MEETS - 7.30pm on the third Thursday of every month

HERTS & BEDS GROUP

CONTACT - Norah Arnold Tel : 0494-671111
 VENUE - The Old School, 1, Branch Road, Park Street Village, St Albans, Herts.
 MEETS - 8.00pm on the first Tuesday of each month

KENT GROUP

CONTACT - Richard Daniels Tel : 01822-511111
 VENUE -
 MEETS - Contact Richard

LONDON APPLE II GROUP

CONTACT - Chris Williams Tel : 011-4945111
 VENUE -
 MEETS - Contact Chris

LONDON MACINTOSH GROUP

CONTACT - Maureen de Saxe Tel : 011-4971111
 VENUE - Room 683, London University Institute of Education, Bedford Way, London, WC1
 MEETS - 6.00pm on the second Tuesday of every month.

M25 BUSINESS MAC GROUP

CONTACT - Jim Panks Tel : 01822-511111
 VENUE - Sir Mark Collett Pavilion, Heaverham Road, Kemsing, Sevenoaks, Kent
 MEETS - Phone Jim for details

SOUTH EAST ESSEX MAC GROUP

CONTACT - Mick Foy Tel : 01702-411111
 VENUE - D.P.S. Acorn House, Little Oaks, Basildon, Essex
 MEETS - First Monday of each month

South

POOLE MACINTOSH USER GROUP

CONTACT - David Huckle Tel : 01202-511111
 VENUE - Deverill Computers (dealer) Itec House, 34-40 West Street, Poole, Dorset BH15 1LA
 MEETS - Four times a year

SOUTHAMPTON

CONTACT - Geoff Parson Tel : 0703-611111 (Home)
 VENUE - Meets alternate Fridays
 Contact Geoff for details

Wales and West

BRISTOL GROUP (B.A.U.D)

CONTACT - Malcolm Ingsley Tel : 0274-611111
 VENUE - Decimal Business Machines Three Queens Lane, Redcliffe
 MEETS - 7th day of each month, or the Thursday nearest to it if the 7th falls on a Friday, Saturday or Sunday.

HANTS & BERKS GROUP

CONTACT - Joe Cade Tel : 0634-611111
 VENUE - Thames Valley Systems (Apple Dealer), 128 High Street, Maidenhead, Berkshire, SL6 1PT Tel 0628-25361
 MEETS - 7.00pm on the second Monday of every month

MACTAFF - SOUTH WALES MAC GROUP

CONTACT -
 VENUE - Apple Centre South Wales, Longeross Court 47 Newport Road, Cardiff
 MEETS - Contact Apple Centre

Midlands

CAMBRIDGE APPLE USERS GROUP

CONTACT - I Ian Archibald Tel : 0223-611111
 Mac Richard Boyd Tel : 0223-441111
 VENUE - Impington Village College, New Rd, Impington, Histon.
 MEETS - Fortnightly during term time with both Mac and Apple II on deck each night.

EAST MIDLANDS MAC USER GROUP

CONTACT - Nick Helm Tel : 0533-611111
 VENUE - Wilford Cricket & Rugby Club, Nottingham
 MEETS - 8.00pm on the first and third Wednesday of every month.

GATEWAY COMPUTER CLUB

CONTACT - Vern Tel : 01494-611111
 Robin Boyd Tel : 01494-611111
 VENUE - Bob Hope Recreation Centre, R.A.F Mildenhall
 MEETS - AMS conference room, Mildenhall base. Normally at weekends, check with Robin
 NOTE : Although the venue is on a service base it is not in a security restricted area so the club is open to interested parties.

LEICESTER GROUP

CONTACT - Bob Bown Tel : 0532 275111
VENUE - Shakespeare Pub, Braunstone Lane,
Leicester
MEETS - 7.30pm to 10.0pm on the first Wednesday of
every month

LIVERPOOL GROUP

CONTACT - Irene Flaxman Tel : 051 451 0111
VENUE - Digital Print Services, Unit 36, Wirral Business
Centre, Dock Road, Birkenhead
MEETS - Second Monday of every month.

MIDAPPLE

CONTACT - Tom Wright Tel : 0547 455111
VENUE - I.T.E.C., Tildasley Street, West Bromwich,
West Midlands
MEETS - 7.00pm on the second Friday of every month

THE MIDLAND MAC GROUP

CONTACT - Ivan Knezovich Tel : 0542 455111
VENUE - Spring Grove House, West Midland Safari
Park, Bewdley, Worcestershire.
MEETS - 8.00pm on the first Tuesday of every month

WEST MIDLANDS AMATEUR COMPUTER CLUB

CONTACT - John Tracey Tel : 0924 211111
VENUE - Hill Crest School, Simms Lane, Netherton,
Near Dudley.
MEETS - 7.00pm on the second and fourth Thursdays
of each month.

NOTE - - This is not an Apple user club, it is a
general interest club which welcomes users of
all machines. There are currently two Apple
user members.

North

BURNLEY APPLE USER GROUP

CONTACT - Rod Turnough Tel : 07726 211111
VENUE - Michelin Sports Centre
MEETS - 2nd Wednesday of each month

CREW COMPUTER USER CLUB

CONTACT - Paul Edmonds
Tel : 01273 211111
VENUE - Christ Church Hall, Crewe
MEETS - Fortnightly, Fridays, 7.30pm to 10.00pm
NOTE: this is a general interest group with
Apple users among its members

HARROGATE AREA

CONTACT - Peter Sutton Tel : 01937 211111
No active organised group in this area but there
are a number of keen Apple users in contact with
each other.

THE NORTH EAST APPLE COMPUTER CLUB

CONTACT - Philip Dixon Tel : 0632 211111
VENUE - Apple Centre North East, Ponteland Road,
Ponteland, Newcastle-on-Tyne
MEETS - First Wednesday of every month

THE NORTH WEST APPLE COMPUTER CLUB

CONTACT - Ken Dawson Tel : 051 451 0111
VENUE - The Coachman's, on the A49, about 1 mile
south of the junction with the M62
MEETS - Second Thursday of every month

THE NORTH WEST APPLE USERS GROUP

CONTACT - Max Parrot
Tel : 051 451 0111
VENUE -
MEETS - Ring Max

Scotland

EDINBURGH GROUP

CONTACT - Ricky Pollock Tel : 031 225 1111
VENUE -
MEETS - Meetings monthly, check with Ricky

Postal

APPLE II PROGRAMMERS CLUB

CONTACT - Philip Dixon TEL : 01842 211111
VENUE - None established yet
MEETS - No meetings yet, has operated through
postal newsletter published quarterly

NOTE : Philip started the club some time ago based
on a membership fee of £1.00 to cover the cost of
newsletters. Original intention was to concentrate
on BASIC and Assembler programming.

New Groups

DORCHESTER

CONTACT - Ron Hoare Tel : 01306 211111
VENUE -
MEETS - Meeting on March 1st -contact Ron Hoare

ORPINGTON COMPUTER CLUB

CONTACT - Terry Wheeler Tel : 01892 211111
VENUE - G.E.A. Hall, Woodhurst Avenue, Petworth
MEETS - Contact Terry

DONCASTER SOUTH YORKSHIRE

CONTACT - Colin Withington Tel : 01924 211111
VENUE -
MEETS - Contact Colin

LEEDS

CONTACT - Bob Miller Tel : 0532 211111
- T Veluppillai Tel : 0532 211111
VENUE -
MEETS - Contact Bob

**If you want to start a group, find out about a
group that might be near you, please write or
contact John Lee the Local Group Organiser at
the PO Box in Liverpool, or phone John Lee on
0373 24 251.**

**If you are a local group organiser and have not
been in touch with John Lee, please contact
John with details of your group, or any
changes there may be to the above details.**

Members' Small Adverts are FREE.
Please help us to help you. Send your advertisements to us on a disk, in Mac or Apple II text format. We will return the disk, of course. This saves us time, and avoids errors.

Members' Small Ads

Members' Small Adverts are FREE.
We reserve the right to edit and or omit them. They are placed in this Magazine in good faith. Apple2000 holds no responsibility over items advertised, and buyers purchase at their own risk.

**WARNING: The sale of copied or pirated software is illegal.
Please ensure that items offered for sale are new or are re-registered.**

FOR SALE

Complete Apple //e system, with Apple VDU,
twin 5.25" Apple Disk II drives,
Cirteck 1mb Plusdisk,
Cirteck 1mb Plusram,
80 col card,
Cirteck Champion with print cache,
Apple Mouse & card,
Panasonic KX-P1081 printer & interface,
Appleworks vs;2,
Cirteck SCSI hardisc interface,
all with original Master discs, manuals, instructions, plus
lots of discs + two discfiles£500
(can deliver if required)

'Phone Joe(anytime) 0273 818181

FOR SALE

Apple IIGS, colour, with Cirtech GS8 RAM card + 2meg.
and Cirtech CPM+ card
2 x Apple 3.5" drives
2 x 5.25" drives
Apple ImageWriter II printer with Thunderscan
Joystick and DIY fan cooling box plus £1000-worth of
software and books
Total price (could split into sensible packages).....£1600

Epson PX8 with 120k RAM unit
HX20 double disk drive unit
P40 portable printer
Software with it is Wordstar, Spreadsheet and Database 2
Cost£350

'Phone David01212 434214

SOFTWARE FOR SALE

Some fun items here, all original disks, all with manuals,
all boxed:

- WriteNow 1.0 by T/Maker£20
- WriteNow 2.0 by T/Maker£60
- THINK C 3.0 by Symantec£40
- The Manhole by Cyan/Activision£15
- Uninvited by ICOM/Mindscape£10
- Genuine Demo disks:(for the lot) £10
- MacWrite II; MacDraw II; Quark Xpress 2.0; Wingz!

Please 'phone David(any-time) 01212 434214

FOR SALE

for Apple //e or IIGS:

- 1) PACE Mastercard II (ideal for electric mail/prestel or as
a serial card for printer£50
- 2) PACE Colour Palette Teletext card (for high-res viedata
graphics).....£75
- 3) PACE Data Highway comms Program 5.25" disks £15
- 4) MicroPro "Superscript" WP program 5.25" disks..£20
- 5) Cirtech Z80 card (ideal for CP/M)£20
- 6) Citizen (model: MSP-15) 120 Column Parallel Dot-
Matrix Printer.....£100
- 7) MicroStar (model ND-15) 120 column Parallel/serial
Dot-Matrix Printer£150
- 8) Omnis 2 Program (database - 5.25" disks)£50
- 9) Inmar //e work station (especially design to sit on top of
//e to hold disk drives, monitor etc. on the top£15
- 10) "WordPerfect" WP program 5.25" disks for //e ..£50
- 11) Various //e manuals, including 'Apple //e Owners
Manual'; DOS; AppleWorks Tutorial; AppleWorks Refer-
ence Manual; 80 Column Text Card Manual + Supplement
Manual; Apple II DOS Manual and many others (sold alto-
gether, not separately)£25
- 12) PC-Transporter Kit (for //e)£20

NB (a) For the "PACE" compatible complete communica-
tions above (items 1, 2 & 3, will consider £125 o.n.o.)
(b) Will consider £450 o.n.o. for all the above

Please contact **Mr. Gordon Owen** on: 01-475 7115 (after
6.30 p.m. Monday-Friday) or send cheque (with cheque
card number of reverse) and additional amount to cover
postage, packing an insurance, (e.g. about £3.50), [if not
collected], to P.O.Box No: 45, London. E.6 3LR.

WANTED

ImageWriter II printer wanted for new Apple owner

'Phone Roger Rion0273 741117

FOR SALE

Privately used Apple //e computer, 80-column text card,
Apple II Monitor, tilting screen, 80 column, non-glare
2 x Apple II disk drives
Shinwa CP80 matrix printer
DOS diskettes and manuals
All in excellent condition£400 o.n.o.

'Phone Mr Fray01212 434214

Advertisers' Index

ACME Computer-Distribution Co.	IBC	Comtec	19
Apple2000 Workshop	70	Holdens Computer Services	59
Bidmuthin Technologies Ltd	IFC,OBC	Kingsway Computer Services	73
Celtip Computers	49	Kirlian Institute (Conference)	69
Chameleon Software	71	MacLine	40,41
Cirtech (UK) Ltd	39	MGA SoftCat	9,31
Computability	15	Open Apple/A2 Central	19
Computer Images	71	Roger D'Arcy Computers	19,69

Abaton Scan 300/GS Sees It Through



Abaton Scan 300/GS has all the features you would expect from a 300 dpi, 8 bit scanner: Flatbed design with removable lid for oversized documents; Line art, halftone and grey-scale scanning modes; 256 levels of grey at 8 bits per pixel; Independent horizontal and vertical resolutions of 75 dpi to 300 dpi in 1 dpi increments; 255 brightness and 255 contrast settings; Mirror and invert capability. Abaton Scan 300/GS goes further with 'Abaton Scan DA' enabling you to: Scan from within any application; Preview images; Select TIFF, PICT2, Encapsulated PostScript® and MacPaint® formats. Plus Abaton offer you the choice of 'Digital Darkroom®' or 'Image Studio®' inclusive in the price!

£1675



When you consider the options, there is only the Abaton Scan 300/GS. Call Acme Computers today to place your order or for further information on other Abaton products.

Abaton

We Make Your Ideas Easier to Publish™

the **Acme Computer-Distribution Co.**

Acme House 2A Sheffield Road, Chesterfield, Derbyshire S41 7LL

Tel. 0246 221394

0246 221396

Fax. 0246 221386

Abaton, Scan 300/GS, Abaton Scan DA, We make your ideas easier to publish and Everex are trademarks of Systems, Inc. Macintosh, PostScript, MacPaint, Digital Darkroom and Image Studio are trademarks or registered trademarks of other respective owners. Pricing and specifications are subject to change.
© 1989 Acme Computers. All rights reserved.

BIDMUTHIN TECHNOLOGIES

Apple II/Mac Specialists



CORPORATE POWER FOR SMALL BUSINESSES

Bidmuthin Technologies Ltd. is one of the best Level 1 Apple Service Centres in the country. Our fast, friendly and efficient service department is growing rapidly and **all our service staff are trained by Apple (UK) Ltd.**

We can offer you complete Macintosh systems at competitive prices, as well as a first class after sales and repair service ...from reviving a dead mouse - to rectifying a complete systems failure. Enquiries on **01-907 8516**.

- **AUTHORISED APPLE DEALER • AUTHORISED APPLE II DEALER •**
- AUTHORISED EDUCATIONAL DEALER • MACINTOSH SYSTEMS TO SUIT**
- ALL REQUIREMENTS • NETWORKS - SET UP AND TROUBLE-SHOOTING**
- **DATA TRANSLATION • MAINTENANCE CONTRACTS • UPGRADES •**
- FULLY TRAINED ENGINEERS • MAC WORKSHOPS**

Bidmuthin Technologies Ltd. Brent House, 214 Kenton Road, Harrow,
Middlesex HA3 8BT. Tel: 01-907 8516 Fax: 01-907 4398